INTERCHANGE MODIFICATION STUDY



PREPARED BY
THOMAS, MILLER & PARTNERS
BRENTWOOD, TENNESSEE
FOR
THE TENNESSEE DEPARTMENT OF TRANSPORTATION
PLANNING DIVISION

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CHAPTER 1

<u>Introduction</u>

A. Purpose of Study

The purpose of this study is to evaluate the existing interchange at Interstate 75 and U.S. 11 (SR-2) Lee Highway, and to request approval for the modification of this interchange. This segment of Interstate 75 is currently under design to be widened to an eight-lane facility within the vicinity of the U.S. 11 (SR-2) Lee Highway interchange. This study was conducted to:

- Determine any operational deficiencies in the current (planned improvements under design) interchange.
- Develop the needed interchange improvements to provide the desired level of service for the design year.
- Evaluate operational characteristics of the recommended improvements for the current conditions (2005) and the design year (2025).
- Develop construction cost estimates and evaluate the land use impacts of the construction.

This Study was initiated at the request of the Tennessee Department of Transportation's Region II survey and design office.

B. Project Location and Description of the Area

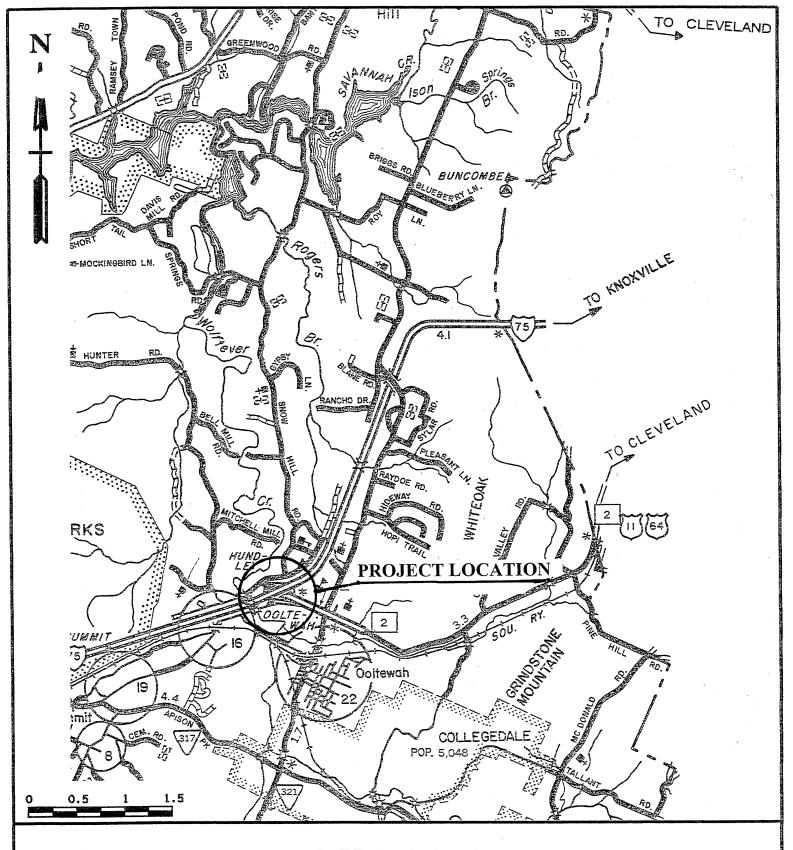
The I-75 & U.S. 11 (SR-2) interchange is located approximately five miles northeast of the Chattanooga Urbanized Area, as shown in Figure 1. The interchange is located along I-75 approximately 2.5 miles north of the recently approved Volunteer Ordnance Access Road interchange and 9.0 miles south of the I-75 and SR-311 (Cleveland, Tennessee) interchange.

This section of I-75 is currently a four-lane median-divided facility with minimal shoulders. As stated previously, this segment of I-75 is currently in the design phase of being widened to eight travel lanes with some minor improvements to the U.S.11 (SR-2) Lee Highway interchange. Construction for these improvements is currently scheduled to begin in the spring of 2002.

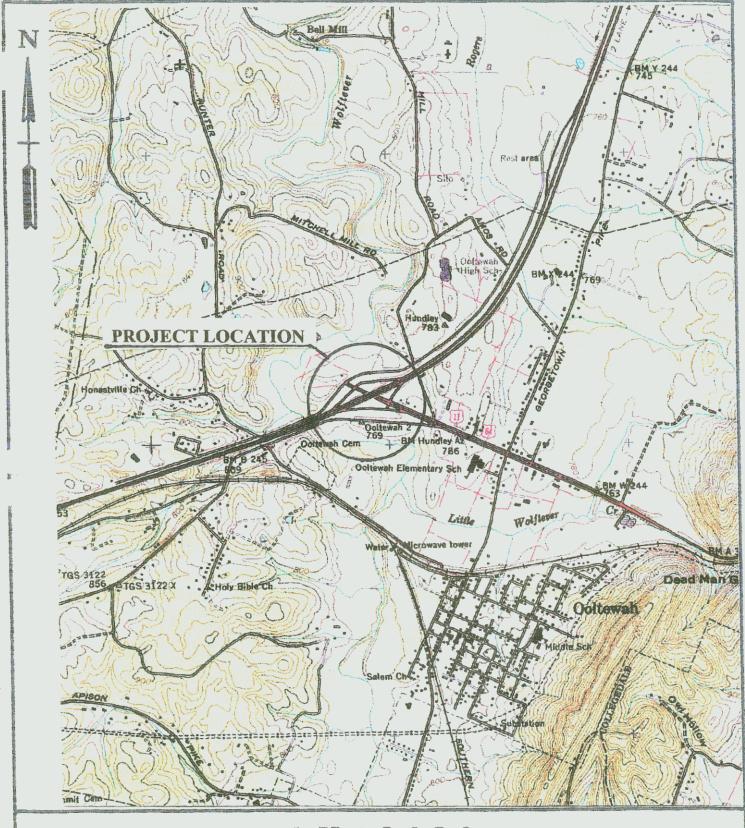
There are several other key roadways within the study area and they are as follows:

Interstate 75 (I-75)

I-75 is a four-lane interstate highway serving as a major north-south route stretching from Florida to Canada and connecting local cities such as Chattanooga and Knoxville, Tennessee.



I-75 & S.R. 2
INTERCHANGE MODIFICATION STUDY
CHATTANOOGA, HAMILTON COUNTY, TENNESSEE
SCALE 1" = 1 MILE



1-75 AND S.R.2 HAMILTON COUNTY

USGS "OOLTEWAH" QUAD SCALE 1" = 2000'

U.S. 11 (SR-2) Lee Highway

Lee Highway is a state route serving the community of Ooltewah (towards the east) and continuing to the city of Cleveland, Tennessee. The typical section for this roadway is comprised of a four-lane depressed median section towards the east. Lee Highway terminates just to the west of the I-75 interchange at the Hunter Road and Mountain View Road intersection. The posted speed limit of this roadway is 45 miles per hour.

Hunter Road

Hunter Road is a two-lane local road that parallels the west side I-75 that extends towards the south from SR-2 (Lee Highway). The posted speed limit is 35 miles per hour. The photo below shows the commercial development towards the west of I-75 and Hunter Road.



Photo 1: Hunter Road Approach to Lee Highway

Mountain View Road

Mountain View Road is a two-lane local road that parallels the west side I-75 and extends north from SR-2 (Lee Highway). Two schools are in the area and are served by this roadway, as well as several residential neighborhoods. The posted speed limit along this route is 35 miles per hour.

The photo below shows the approach along Lee Highway traveling towards the west to the existing Hunter Road and Mountain View Road intersection. As shown in Photo 2, intersection spacing between the ramp termini on the west side of I-75 and the Hunter Road/Mountain View Road intersection is extremely short with only 240 feet between stop bars.



Photo 2: Intersection of Lee Highway and Hunter Rd/Mountain View Rd

C. Relationship to Other Highway Improvement Programs and Plans

I-75 is currently a four-lane facility on the National Highway System. A project is currently in the design phase to widen this roadway to an eight-lane facility within the study area. This project has a tentative construction letting date for the spring of 2002. The development of the various improvement alternatives from this study for this interchange will be compatible with the future design plans for this section of Interstate 75.

The 2015 Long Range Transportation Plan for the Chattanooga Urbanized Area contains the widening of I-75 within the project vicinity as well as minor improvements to the associated ramps and U.S. 11 (SR-2) Lee Highway. The Long Range Plan was also amended on December 21, 1998 by the Executive

Board of Chattanooga Metropolitan Planning Organization (MPO) to include the new access point located 2.5 miles south of the subject interchange. As stated previously, this new access point (Volunteer Ordnance Access Road interchange) has recently received approval from the Federal Highway Administration (FHWA).

CHAPTER 2

Preliminary Planning Data

A. Land Use

The land use in the vicinity of the interchange is a mixture of various commercial and residential developments. It includes hotels, gas stations, fast food restaurants and other types of development historically associated around interstate interchanges. Photo 3 and 4 shows the typical development found along the east and west side of I-75 along SR-2 (Lee Highway).



Photo 3: East side of I-75 along U.S. 11 (SR-2) Lee Highway



Photo 4: West side of I-75 at Hunter Road & Mountain View Road

B. Traffic Served

The traffic data for this study was supplied by the Tennessee Department of Transportation (TDOT) and was based on proposed land use and existing conditions. The Design Hourly Volumes (DHV) for the years 2005 and 2025 are shown in Appendix A.

The 2005 traffic along Interstate 75 in the study area is 85,200 vehicles per day. The design year (2025) volumes on I-75 are projected to be 136,500 vehicles per day. The majority of the traffic traveling along I-75 from SR-2 occurs southbound in the morning (towards the city of Chattanooga) and northbound in the afternoon.

Traffic along U.S. 11 (SR-2) Lee Highway is evenly distributed with 27,000 vehicles per day utilizing the east and west side of Lee Highway in the base year, with 48,000 vehicles per day in the design year. The heaviest ramp movements, as alluded to earlier, are the I-75 northbound exit ramp and the I-75 southbound entrance ramp. The figures in Appendix A provide a complete breakdown of traffic volumes for the subject interchange for the base year (2005) and the design year (2025).

C. Improvements Under Design

As stated previously, plans are underway to widen I-75 in the study area as well as provide some improvements to the interchange. The mainline of the interstate will be widened to four-travel lanes in the northbound and southbound direction with two lane exit and entrance ramps provided on the south side of Lee Highway. The existing I-75 bridge over SR-2 will be widened to accommodate one additional travel lane in each direction as well as the required shoulder widths.

During the development of this interchange modification study, the Tennessee Department of Transportation chose to include the some of recommendations within this study, as part of the on-going design project. These improvements include relocating the existing frontage roads (Mountain View Road & Hunter Road) east of I-75. These improvements will provide additional storage capacity and safety for motorists traveling through this area, as well as provide for the future interchange improvements recommended. At the time of this report, the department has revised the right-of-way plans for the project and acquired the necessary land towards the east of I-75 to realign the frontage roads.

U.S. 11 (SR-2) Lee Highway (East)

Minimal improvements to Lee Highway on the east side of I-75 are planned in the current design project. The northbound I-75 exit ramp will be modified at the intersection with Lee Highway and will be comprised of two (2) left turn lanes and two (2) right turn lanes under signalized control. The existing free-flow right turn lane towards the east on Lee Highway will be eliminated. Due to the pier locations and structure design for the existing bridge on I-75 over Lee Highway, clearance is not sufficient for more than three (3) travel lanes in each direction.

U.S. 11 (SR-2) Lee Highway (West)

In order to facilitate turning movements and operation of the signalized intersections of the ramp terminals/Hunter Road/Mountain View Road and Lee Highway along the west side of interstate, additional right turn lanes and left turn lanes towards the I-75 southbound entrance ramp are being added. The existing spacing (240') between the two signalized intersections is not being addressed with this current design project.

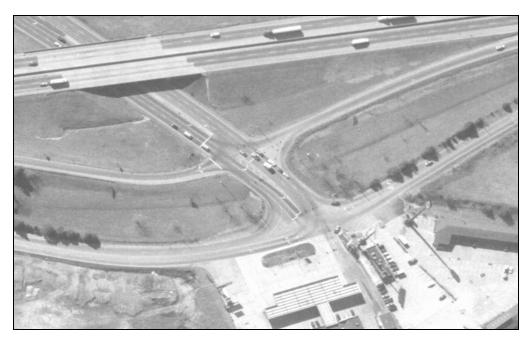


Photo 5: Aerial view of I-75 at Hunter Road & Mountain View Road

D. Discussion of Alternatives & Recommended Improvements

As part of this study, an evaluation of the improvements under design was completed then various alternatives for deficiencies that were not addressed in the design plans were investigated. As part of the analysis, it was determined that operational problems would occur primarily at the ramp terminals of I-75 and SR-2 (Lee Highway). It also became evident that the intersection spacing between the I-75 ramp terminals on the west side of I-75 and the Hunter Road & Mountain View Road intersection would cause substantial queues and obstruct the traffic flow to/from the I-75 ramps. The following outlines three (3) alternatives that were developed to improve the operation and safety of the interchange:

Alternate A (Single-Point Diamond Interchange)

After reviewing the traffic volumes provided by the Tennessee Department of Transportation, it became obvious that the I-75 northbound exit ramp and the I-75 southbound entrance ramp were handling the majority of the traffic to and from the interstate. Therefore, it also became necessary to evaluate the intersection spacing and associated queue lengths. Alternate A would eliminate the two ramp terminal traffic signals on Lee Highway and control traffic under one new signal. With this new configuration, a new structure over Lee Highway on I-75 would be required to provide adequate clearance for all the turning movements associated with a single-point urban diamond interchange. Several shortcomings of this alternative were determined after further investigation. The new structure over Lee Highway would have been costly as well as difficult to construct while maintaining traffic on this congested section on interstate. With this option, ramp storage for the I-75 northbound exiting vehicles would have

been reduced which could have resulted in back-ups on the interstate. With all these factors taken into account, the alternative was eliminated.

Alternate B (Northeast Quadrant Loop)

A second alternative would have modified the existing I-75 northbound exit ramp as a loop ramp located in the northeast quadrant of the interchange. With this loop ramp, the vehicles currently turning left from the exit ramp towards westbound Lee Highway would be added as right turns, thus removing these movements from signalized control. As with the first alternate, the existing structure would have to be replaced in order to add the loop ramp traffic as a free-flow movement. When reviewing the traffic volumes for this ramp as well as the associated analysis, it also appeared that there may be some delay and queues on this loop ramp which could cause congestion to the mainline of I-75. Alternate B would also require costly right-of-way acquisitions including three (3) commercial establishments.

Alternate C (Northwest Quadrant Loop)

The final alternative was developed to attempt to separate the heavy volumes from the left turns on Lee Highway towards I-75 southbound and the right turns from eastbound Lee Highway (Hunter/Mountain View Road) to I-75 southbound. In order to accomplish this separation and to provide better operation of the entire west side of the interchange area, a loop entrance ramp from westbound Lee Highway to southbound I-75 was recommended. Along with these improvements, the extension of Lee Highway towards the west would provide additional intersection spacing and storage for the large volumes of turning movements in this congested area.

This alternative was considered the best to further develop design options for the improvements to I-75 and SR-2 (Lee Highway).

Recommended Improvements

Alternate C was selected as the alternate to carry to the next phase of development. This option would not change the plans currently under design for the east side of I-75. Both the mainline of SR-2 (Lee Highway) and the I-75 northbound exit ramp and I-75 northbound entrance ramps would remain as designed. With the addition of double left and right turns on the northbound exit ramp terminal with SR-2, operation of this segment of Lee Highway will operate satisfactorily.

The major focus of this alternate is the proposed loop ramp to be added for those motorists traveling from Lee Highway to I-75 southbound as well as the extension of Lee Highway towards the west a distance of 600 feet. This extension will provide the necessary storage lengths and laneage along both Hunter and Mountain View Roads and Lee Highway for the heavy turn movements that occur between these two intersections.

Both of these frontage roads located on the west side of I-75 will be relocated with one business acquisition (Waffle House). Two other commercial establishments (Super 8 & Exxon station) would be impacted with the proposed right-of-way needed.

The recommended improvements of this option would:

- Provide the needed separation between the ramp terminal signal and the Hunter Road and Mountain View Road intersections.
- Separate the heavy turning movements from westbound Lee Highway to I-75 southbound via the loop ramp and the turning vehicles from eastbound Lee Highway to I-75 southbound.
- Leave the existing bridge on I-75 over Lee Highway, but require an additional widening of twelve (12) feet, based on the current design plans.

The functional layout sheets for these recommended improvements are included in Appendix I of this report.

Late in the development of this study, a parcel adjacent to the interchange on the north (west) side was purchased by a local Chattanooga hospital (Memorial Hospital). The proposed site for this outpatient services building and medical office complex will be located along Relocated Mountain View Road. The department is coordinating the proposed improvements to the interchange with the needs of the hospital to provide safe and reasonable access to this portion of the I-75 and US-11 (SR-2) interchange area.

E. Environmental Concerns

While detailed environmental technical studies were not conducted for this phase of the interchange study, preliminary investigations were done to identify site specific environmentally sensitive areas for historic, archeological and ecological considerations. At the current time, the recommended improvements do not appear to impact any areas of environmental or historical significance.

CHAPTER 3

Engineering Investigations

A. Traffic Operations

An analysis was conducted to determine what impacts the recommended improvements would have on traffic operations along this section of I-75 and on the associated ramps and cross road (SR-2). The traffic operations analysis includes basic freeway segments, merge/diverge sections and signalized intersections.

Appendix B contains figures summarizing the levels-of-service for the improvements under design and the recommended improvements for base year (2005) and design year (2025) traffic. The levels-of-service were determined using the peak hour volumes which represent the worst case condition for each location.

IMPROVEMENTS UNDER DESIGN

For the purpose of this study, the improvements currently under design were considered to be the existing conditions. The capacity analysis of the ramp junctions within the study area are summarized below in Table 1 for the base year and design year (2025), with service lives shown.

TABLE 1

CAPACITY ANALYSES OF RAMP JUNCTIONS WITHIN THE STUDY AREA

Ramp Junctions	Year 2005	Year 2025	Service Life
Northbound I-75 exit to US-11 (SR-2) (AM)	Α	В	2025
Northbound I-75 exit to US-11 (SR-2) (PM)	В	F	2019
Northbound I-75 entrance from US-11 (SR-2) (AM)	В	С	2025
Northbound I-75 entrance from US-11 (SR-2) (PM)	С	F	2018
Southbound I-75 exit to US-11 (SR-2) (AM)	С	F	2018
Southbound I-75 exit to US-11 (SR-2) (PM)	В	D	2025

Note: Some ramp junctions within the study area result in a lane addition or lane drop. Analyses for these locations are shown in table below.

In addition to the ramp junctions shown in Table 1, one location within the study area includes an interchange ramp that is associated with a lane addition on I-75. This location is as follows:

• Southbound I-75 entrance ramp from U.S. 11 (SR-2). The current design plans widen this existing ramp to two travel lanes. These lanes are developed as a lane addition to I-75, before tapering to one lane south of the interchange area.

The Highway Capacity Manual (HCM) states the following about lane additions and lane drops:

"Sometimes on-ramps are associated with lane additions and off-ramps with lane drops. Where a ramp results in a lane addition or deletion, the capacity of the ramp is governed by its geometry, as indicated in Table 5-6."

The information in Table 5-6 of the HCM indicates that for a free-flow ramp speed of 41-50 mph, a two-lane ramp has a capacity of 4,100 vehicles per hour. Table 2 includes the projected traffic volumes on the ramp, which results in a lane addition on I-75 at the subject interchange.

TABLE 2

CAPACITY ANALYSES AT RAMP JUNCTIONS
WHICH RESULT IN A LANE ADDITION OR LANE DROP

	# of	capacity	Year	Year
Ramp Junctions	lanes	(vph)	2005	2025
Southbound I-75 entrance from US-11 (SR-2) (AM)	2	4,100	1,550	2,470
Southbound I-75 entrance form US-11 (SR-2) (PM)	2	4,100	1,030	1,670

The results of these analyses indicate that the current plans for the southbound I-75 entrance ramp provide adequate capacity and operation as a two lane ramp.

The results of the capacity analyses for the freeway segments within the study area are shown in Table 3. These results indicate the following freeway segments are projected to operate at acceptable LOS in the Year 2005, based on the planned roadway network:

TABLE 3

CAPACITY ANALYSES OF FREEWAY SEGMENTS
WITHIN THE STUDY AREA

	Year	Year	Service
Freeway Segments	2005	2025	Life
Northbound I-75 south of US-11 (SR-2) (AM)	В	D	2025
Northbound I-75 south of US-11 (SR-2) (PM)	С	F	2018
Southbound I-75 south of US-11 (SR-2) (AM)	С	Е	2025
Southbound I-75 south of US-11 (SR-2) (PM)	В	С	2025
Northbound I-75 north of US-11 (SR-2) (AM)	С	D	2025
Northbound I-75 north of US-11 (SR-2) (PM)	D	F	2017
Southbound I-75 north of US-11 (SR-2) (AM)	D	F	2017
Southbound I-75 north of US-11 (SR-2) (PM)	С	D	2025

Capacity analyses were conducted for the three signalized intersections along Lee Highway based on the current plans for improvement. The results of this analyses are shown in Table 4. The analyses shows that all three intersections will operate at acceptable LOS during the AM and PM peak hours in the Year 2005, but will fail before the design year (2025).

TABLE 4

CAPACITY ANALYSES OF SURFACE STREET INTERSECTIONS
WITHIN THE STUDY AREA

	Year	Year
INTERSECTION	2005	2025
Intersection of Hunter Rd/Mountain View Rd & US-11 (SR-2) (AM)	D	F
Intersection of Hunter Rd/Mountain View Rd & US-11 (SR-2) (PM)	F	F
Intersection of I-75 Southbound exit and US-11 (SR-2) (AM)	D	F
Intersection of I-75 Southbound exit and US-11 (SR-2) (PM)	D	F
Intersection of I-75 Northbound exit and US-11 (SR-2) (AM)	С	F
Intersection of I-75 Northbound exit and US-11 (SR-2) (PM)	С	F

RECOMMENDED IMPROVEMENTS

The results of the capacity analyses conducted for the proposed improvements are shown in the following tables. As shown in Table 5, all of the ramp junctions (excluding add or drop lanes) within the study area, are projected to operate at poor LOS in the year 2025. However, these ramps will provide a service life of at least 13 years. It is important to note that these ramp junction failures could be eliminated with the addition of one mainline lane in each direction along I-75.

Also, as with the existing roadway network, several locations within the study area will include an interchange ramp that is associated with a lane addition or a lane drop on I-75. These locations are as follows:

- Southbound I-75 entrance ramp from eastbound U.S. 11 (SR-2). The current design plans widen this existing ramp to two travel lanes. The recommended improvements would revise this to a one-lane ramp addition to I-75 with a design speed of 41-50 mph.
- Southbound I-75 entrance ramp from westbound U.S. 11 (SR-2). This one-lane loop ramp would be added to the I-75 southbound mainline and be designed with 30 mph design speed.

The information in Table 5-6 of the HCM indicates that for a free-flow ramp speed of 41-50 mph, a single-lane ramp has a capacity of 2,100 vehicles per hour. The information in Table 5-6 of the HCM also indicates that for a free-flow ramp speed of 21-30 mph, a single-lane ramp has a capacity of 1,900 vehicles per hour. Table 6 includes the projected traffic volumes on each of these two ramps, which will result in a lane addition at the subject interchange. The results of these analyses indicate that the traffic projected to use the ramps will have adequate capacity to accommodate the volumes projected on the proposed roadway network in the years 2005 and 2025.

TABLE 5

CAPACITY ANALYSES OF RAMP JUNCTIONS WITHIN THE STUDY AREA

	Year	Year	Service
Ramp Junctions	2005	2025	Life
Northbound I-75 exit to US-11 (SR-2) (AM)	А	В	2025
Northbound I-75 exit to US-11 (SR-2) (PM)	В	F	2019
Northbound I-75 entrance from US-11 (SR-2) (AM)	В	С	2025
Northbound I-75 entrance from US-11 (SR-2) (PM)	С	F	2018
Southbound I-75 exit to US-11 (SR-2) (AM)	С	F	2018
Southbound I-75 exit to US-11 (SR-2) (PM)	В	D	2025

Note: Some ramp junctions within the study area result in a lane addition or lane drop.

Analyses for these locations are shown in Table 6.

TABLE 6

CAPACITY ANALYSES AT RAMP JUNCTIONS
WHICH RESULT IN A LANE ADDITION OR LANE DROP

	# of	capacity	Year	Year
Ramp Junctions	lanes	(vph)	2005	2025
Southbound I-75 entrance from US-11 (SR-2) (AM)	1	2,100	810	1,220
Southbound I-75 entrance form US-11 (SR-2) (PM)	1	2,100	540	810
Proposed Loop Ramp to I-75 (AM)	1	1,900	740	1,250
Proposed Loop Ramp to I-75 (PM)	1	1,900	490	860

The results of the capacity analyses for the freeway segments within the study area are shown in Table 7. These results indicate that in the morning (AM), I-75 southbound will operate at a poor level of service. The reciprocal movement in the evening (PM), I-75 northbound will also operate at a poor level of service in the design year (2025).

Table 7 also shows that the service life for the freeway segments varies from thirteen (13) to twenty-five (25) years. As stated previously, in order for the mainline of I-75 to operate at acceptable level of service for both peak hour periods would require one additional travel lane in each direction above what is currently being designed.

TABLE 7

CAPACITY ANALYSES OF FREEWAY SEGMENTS

WITHIN THE STUDY AREA

	Year	Year	Service
Freeway Segments	2005	2025	Life
Northbound I-75 south of US-11 (SR-2) (AM)	В	D	2025
Northbound I-75 south of US-11 (SR-2) (PM)	С	F	2018
Southbound I-75 south of US-11 (SR-2) (AM)	С	Е	2025
Southbound I-75 south of US-11 (SR-2) (PM)	В	С	2025
Northbound I-75 north of US-11 (SR-2) (AM)	С	D	2025
Northbound I-75 north of US-11 (SR-2) (PM)	D	F	2017
Southbound I-75 north of US-11 (SR-2) (AM)	D	F	2017
Southbound I-75 north of US-11 (SR-2) (PM)	С	D	2025

TABLE 8

CAPACITY ANALYSES AT SURFACE STREET INTERSECTIONS

WITHIN THE STUDY AREA

	Year	Year
INTERSECTION	2005	2025
Hunter Rd/Mountain View Rd & US-11 (SR-2) (AM)	В	D
Hunter Rd/Mountain View Rd & US-11 (SR-2) (PM)	В	D
I-75 Southbound exit and US-11 (SR-2) (AM)	В	D
I-75 Southbound exit and US-11 (SR-2) (PM)	В	С
I-75 Northbound exit and US-11 (SR-2) (AM)	С	F
I-75 Northbound exit and US-11 (SR-2) (PM)	С	F

Table 8 above, shows the operation of the three signalized intersections along SR-2 (Lee Highway) based upon the recommended improvements. The signals along the west side of I-75 will operate at an acceptable level of service in the design year while the I-75 northbound exit ramp intersection will fail in 2025, due to the lack of sufficient through lanes on the mainline of Lee Highway.

B. Access Analysis

This study has been undertaken in accordance with the Federal Highway Administration's (FHWA) policy for granting new or revised interchange access. The FHWA policy, as described in FHWA Docket 98-3460, "Additional Interchanges to the Interstate System (Federal Register 63, No. 28, February 11, 1998) is provided in the following paragraphs accompanied by comments for consideration.

"It is in the national interest to maintain the Interstate System to provide the highest level of service in terms of safety and mobility. Adequate control of access is critical to providing such service. Therefore, new or revised access points to the existing Interstate System should meet the following requirements."

1. The existing interchanges and/or local roads and streets in the corridor can neither provide the necessary access nor be improved to satisfactorily accommodate the design year traffic demands while at the same time providing the access intended by the proposal.

With the continual increase in traffic volumes along I-75 within the project area, the capacity and merge/diverge movements will continue to diminish the operation of the interstate system in the project area. This degradation will result in increased motorists delay, reduced traveler safety, and reduced air quality within the city of Chattanooga's Urbanized Area. Operation of the ramp terminal intersections will continue to degrade with potential queues extending onto the interstate facility.

No minor interchange improvements can be made (other than the recommended configuration) to eliminate the major problems outlined previously in this report.

2. All reasonable alternatives for design options, location and transportation system management type improvements (such as ramp metering, mass transit, and HOV facilities) have been assessed and provided for if currently justified, or provisions are included for accommodating such facilities if a future need is identified.

There were several different design options developed and assessed in this study to improve the operation of the I-75 and U.S. 11 (SR-2) Lee Highway interchange. However, the proposed design is the only one that produced the desired level of service and operational/safety characteristics for the interchange and the associated ramps and cross road.

The improvements needed for operation and safety cannot be adequately addressed through transportation demand management, strategies such as: ramp metering, mass transit or park and ride lots. As stated previously, I-75 is currently being designed to be widened to an eight-lane facility; however, HOV lanes are not planned as part of this improvement nor are they recommended in Chattanooga's Long Range Transportation Plan.

3. The proposed access point does not have a significant adverse impact on the safety and operation of the interstate facility based upon an analysis of current and future traffic. The operational analysis for existing conditions shall, particularly in urbanized areas, include an analysis of sections of interstate to an including at least the first adjacent existing or proposed interchange on either side. Crossroads and other roads and streets shall be included in the analysis to the extent necessary to assure their ability to collect and distribute traffic to and from the interchange with new or revised access points.

The recommended improvements developed in this study will not have any adverse impact on the safety and operation of the interstate facility. Improvement in operation and safety will be realized, especially at the signalized intersections of U.S. 11 (SR-2) Lee Highway and the ramp terminals.

4. The proposed access connects to a public road only and will provide for all traffic movements. Less than "full interchanges" for special purpose access for transit vehicles, for HOV's, or into park and ride lots may be considered on a case-by-case basis. The proposed access will be designed to meet or exceed current standards for Federal-Aid projects on the Interstate System.

The proposal is a modification of the existing interchange at Interstate 75 and U.S. 11 (Lee Highway). The proposed modification is a "full interchange" and will meet or exceed the American Association of State Highway and Transportation Officials (AASHTO) criteria.

5. The proposal considers and is consistent with local and regional land use and transportation plans. Prior to final approval, all requests for new or revised access must be consistent with the metropolitan and/or statewide transportation plan, as appropriate, the applicable provisions of 23 CFR part 450 and the transportation conformity requirements of 40 CFR parts 51 and 93.

The study was coordinated with the Tennessee Department of Transportation and the local office of the FHWA and is consistent with all local, regional, and statewide land use and transportation plans.

6. In areas where the potential exists for future multiple interchange additions, all requests for new or revised access are supported by a comprehensive interstate network study with recommendations that address all proposed and desired access within the context of a long-term plan.

There are no long-range plans for any additional interchanges in this area other than the approved Volunteer Ordnance Access Road interchange to be located 2.5 miles south of the SR-2 (Lee Highway) interchange. The existing interchange provides adequate access to the study area.

7. The request for a new or revised access generated by a new or expanded development demonstrates appropriate coordination between the development and related or otherwise required transportation system improvements

The request is not generated by new or expanded development within the vicinity of the interchange. This interchange modification is intended to correct operational inadequacies of the existing/planned interchange configuration and its' associated ramp terminal intersections.

8. The request for a new or revised access contains information relative to the planning requirements and the status of environmental processing of the proposal.

As stated previously, the preliminary site assessment did not reveal the presence of any environmentally sensitive areas for historic, archeological and ecological considerations. The proposed modifications recommended in this study will be submitted to the TDOT Environmental Department to begin environmental studies at the time this report is submitted to the FHWA.

C. Proposed Interchange Cost

The total cost for the recommended improvements to the interchange area is anticipated to be \$ 8,778,000. This cost estimate is above and beyond the projected cost for the planned improvements currently under design for the study area. For a detailed break-down of this estimate, see the "Cost Data Sheet" located in Appendix F.

CHAPTER 4

Summary of Findings and Conclusions

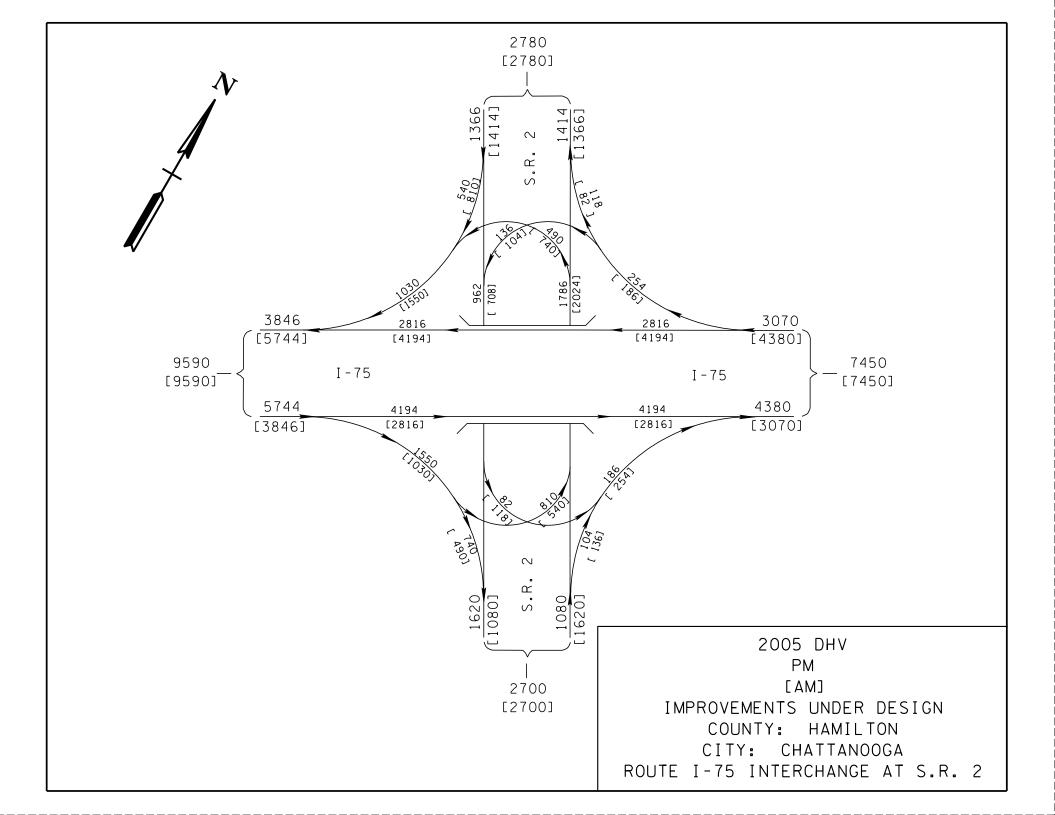
The purpose of this study was to evaluate the planned interchange/interstate improvements currently under design for Interstate 75 and U.S. 11 (SR-2) Lee Highway. As part of this study, develop any recommended improvements for deficiencies not addressed within the design plans. Once these deficiencies are determined and cost calculated, incorporate them into the design process. As stated previously, various improvements to the local roadway system have now been incorporated into the current design project underway and will provide for the recommended improvements contained in this study.

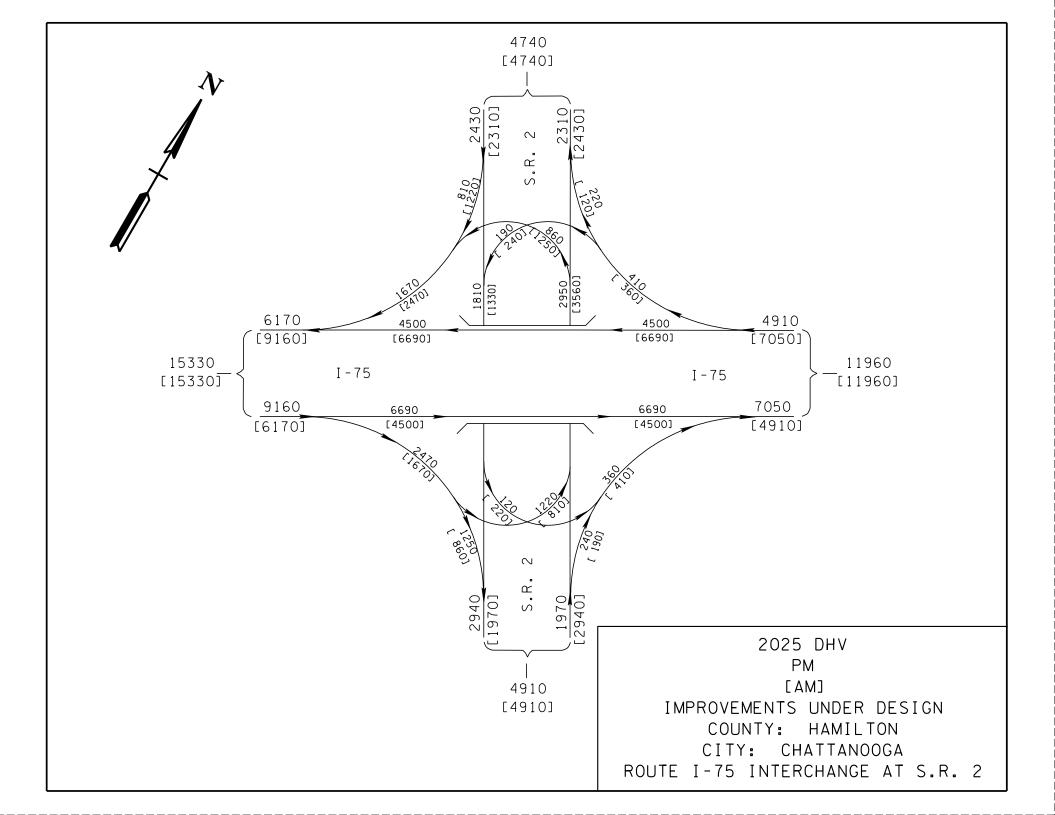
The traffic analysis indicates that the planned interchange ramps along the east side of I-75 are sufficient to handle the current and design year traffic volumes. However, due to the close proximity of signal spacing on Lee Highway at the I-75 southbound entrance ramp terminal and the intersection of Hunter Road and Mountain View Road, operation and safety problems will continue to exist if not addressed.

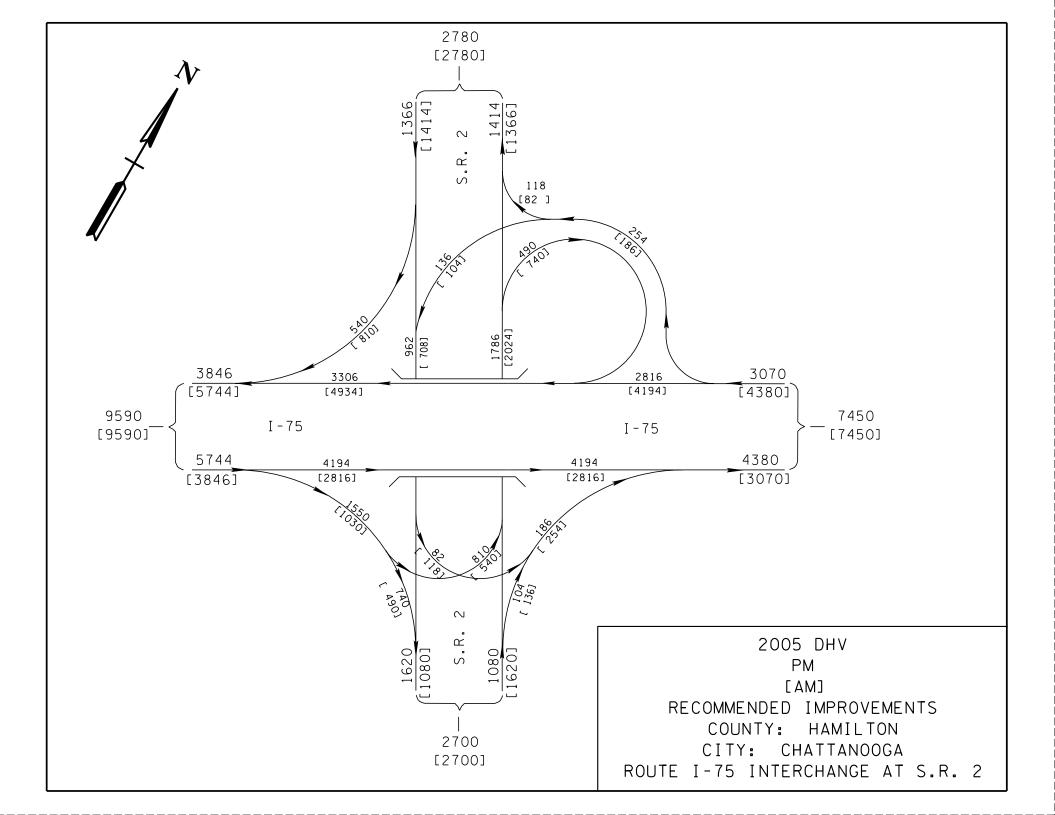
The recommended improvements along I-75 and U.S. 11 (SR-2) Lee Highway will greatly improve the safety of motorists traveling through this area as well as facilitate the large heavy turning movements and heavy trucks that presently use this roadway network. Traffic operations will be improved with most movements operating at a desirable level of service.

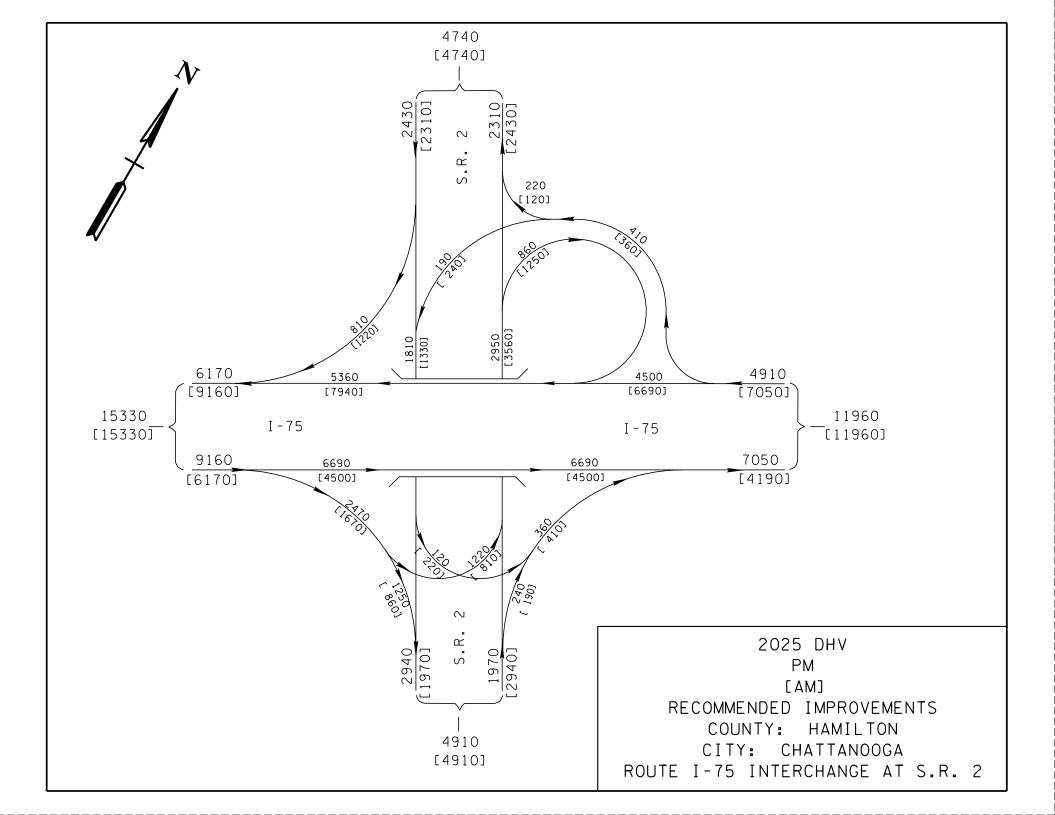
APPENDIX A

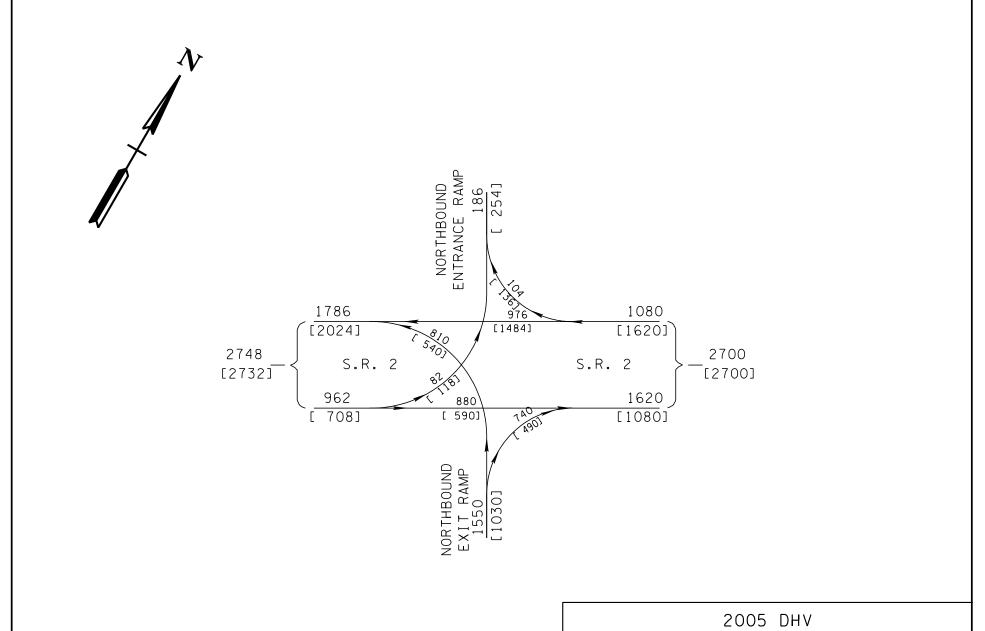
TRAFFIC VOLUMES: 2005 AND 2025 DHV'S









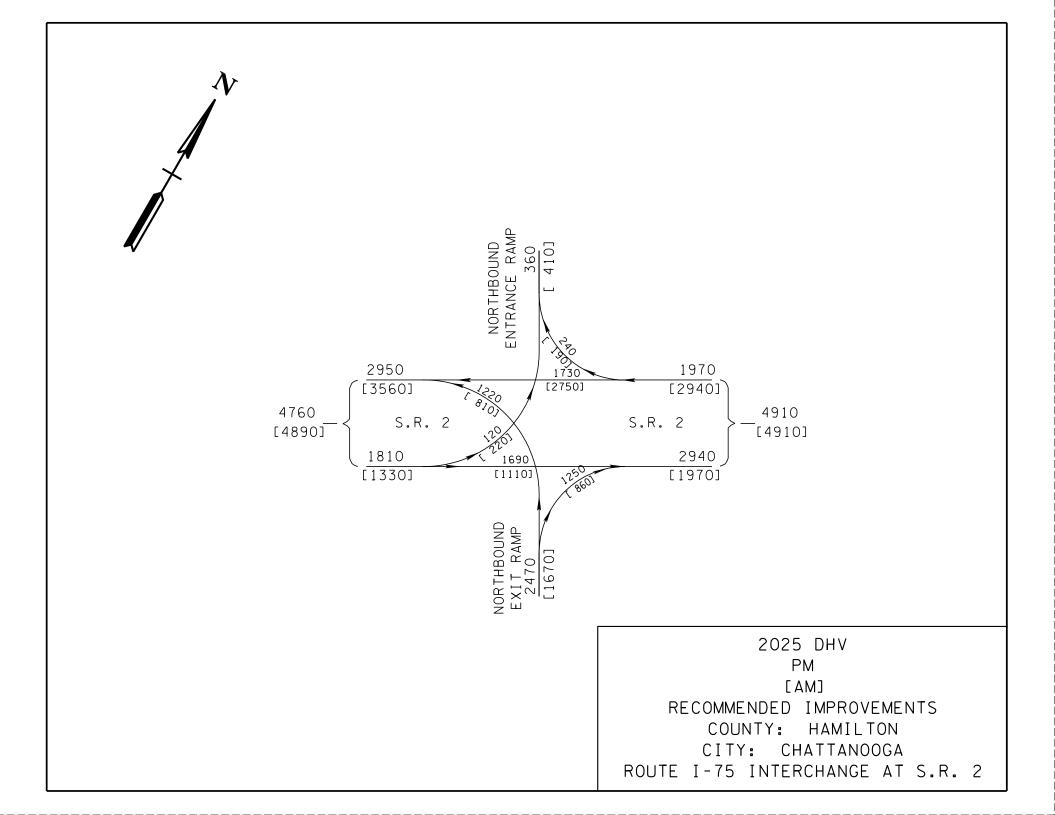


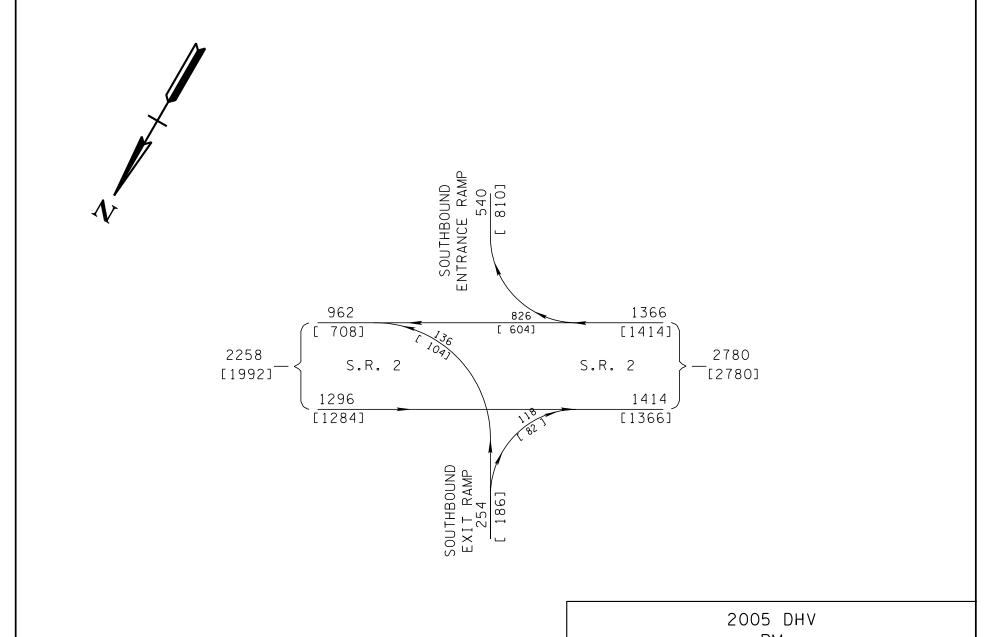
2005 DH\ PM [AM]

RECOMMENDED IMPROVEMENTS

COUNTY: HAMILTON

CITY: CHATTANOOGA



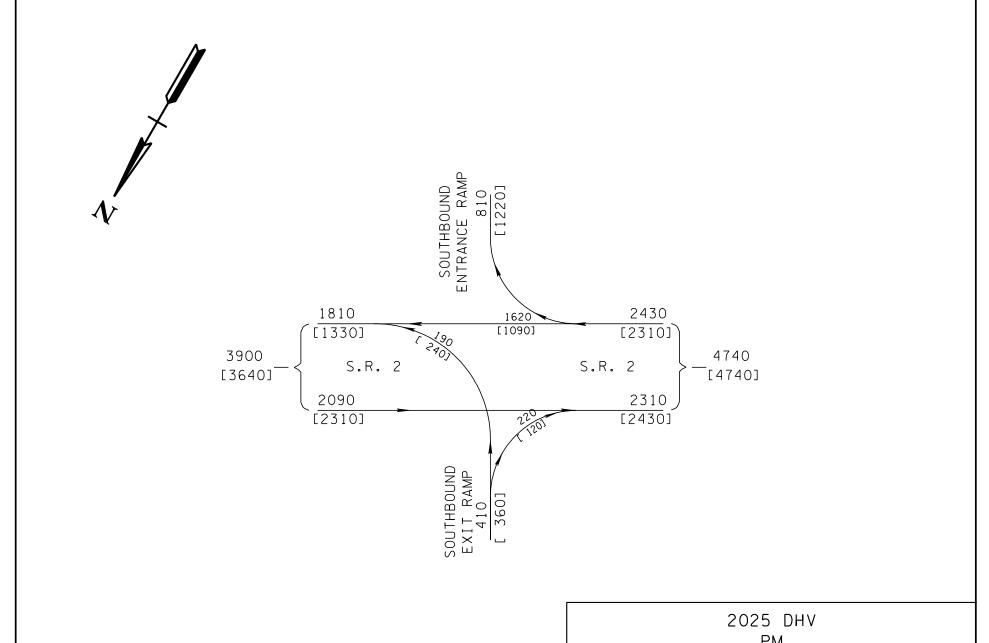


2005 DHV PM [AM]

RECOMMENDED IMPROVEMENTS

COUNTY: HAMILTON

CITY: CHATTANOOGA

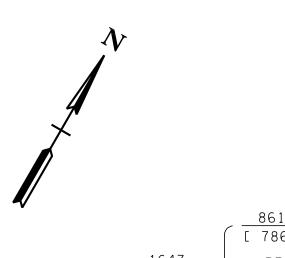


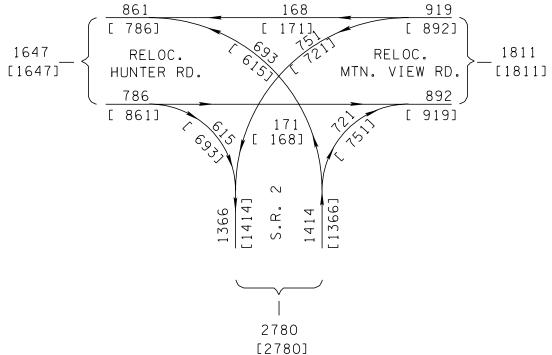
ΡМ [AM]

RECOMMENDED IMPROVEMENTS

COUNTY: HAMILTON

CITY: CHATTANOOGA



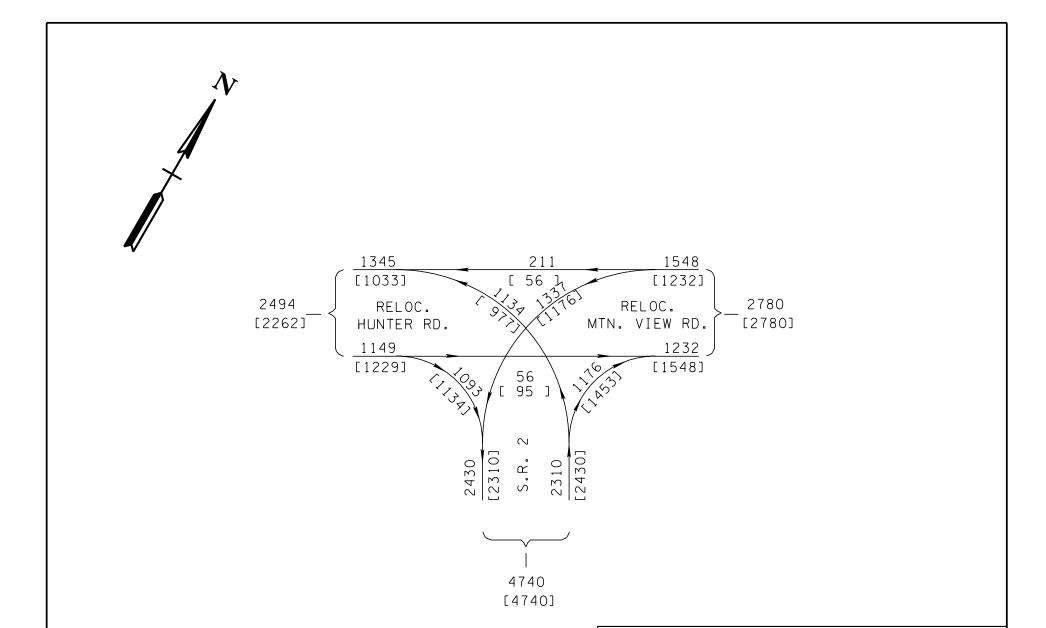


2005 DHV PM [AM]

RECOMMENDED IMPROVEMENTS

COUNTY: HAMILTON

CITY: CHATTANOOGA

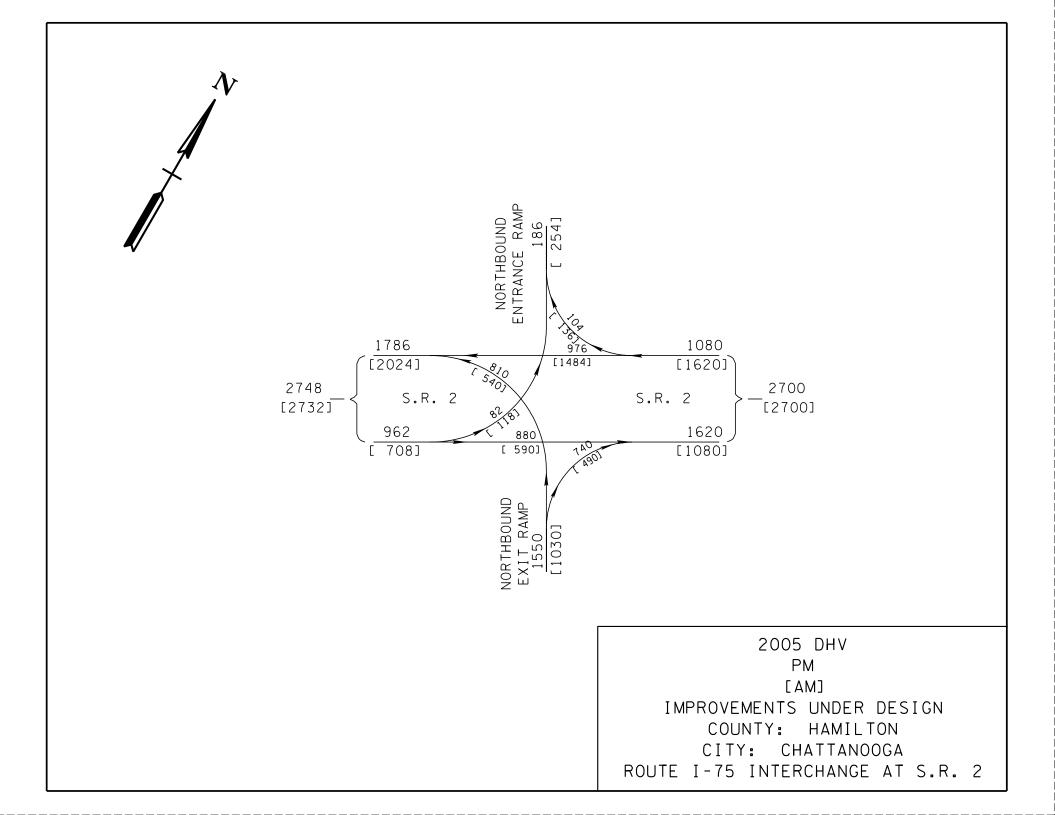


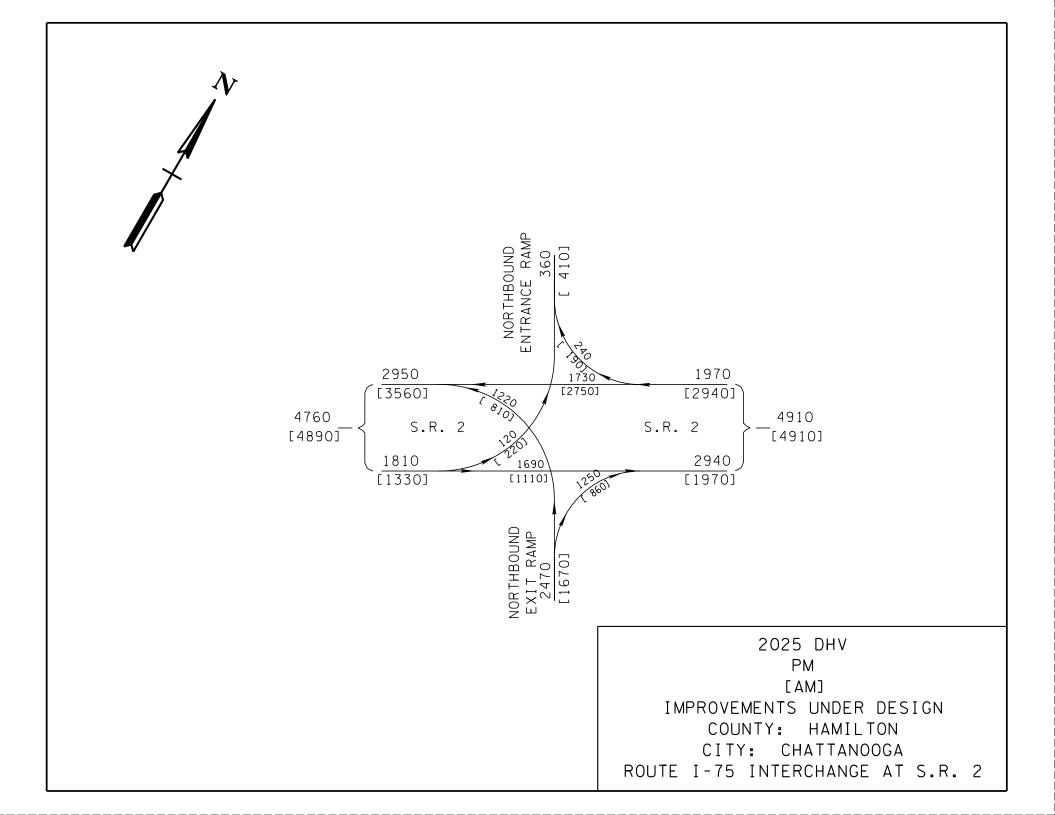
2025 DHV PM [AM]

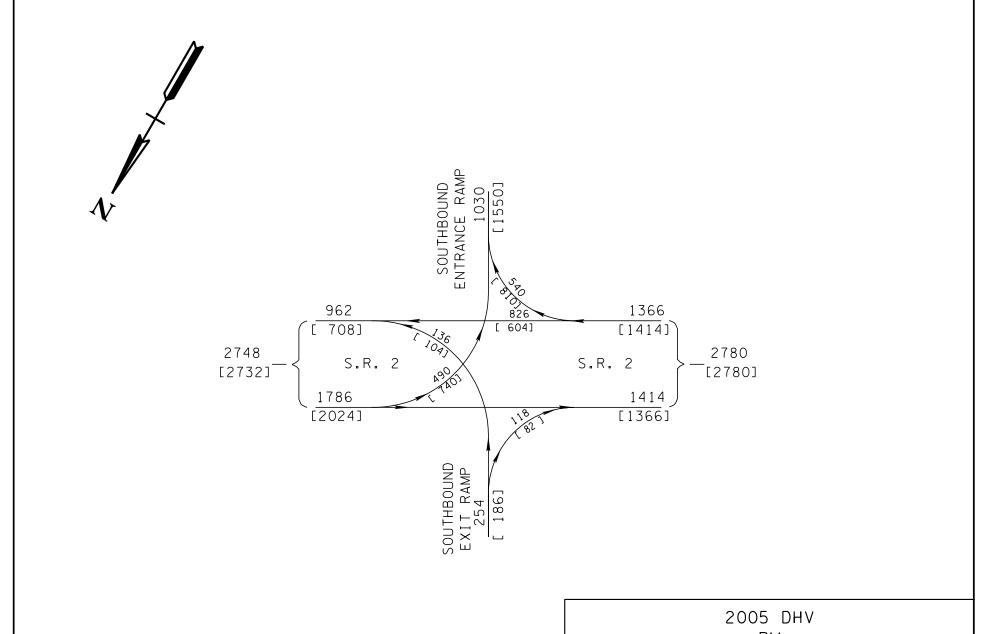
RECOMMENDED IMPROVEMENTS

COUNTY: HAMILTON

CITY: CHATTANOOGA







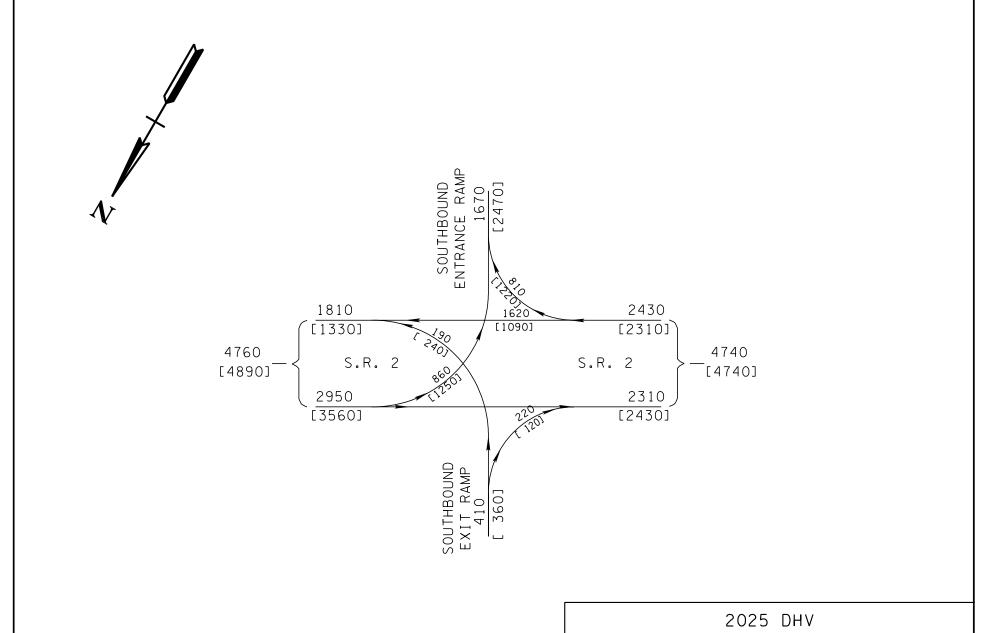
2005 DHV PM [AM]

IMPROVEMENTS UNDER DESIGN

COUNTY: HAMILTON

CITY: CHATTANOOGA

ROUTE I-75 INTERCHANGE AT S.R. 2



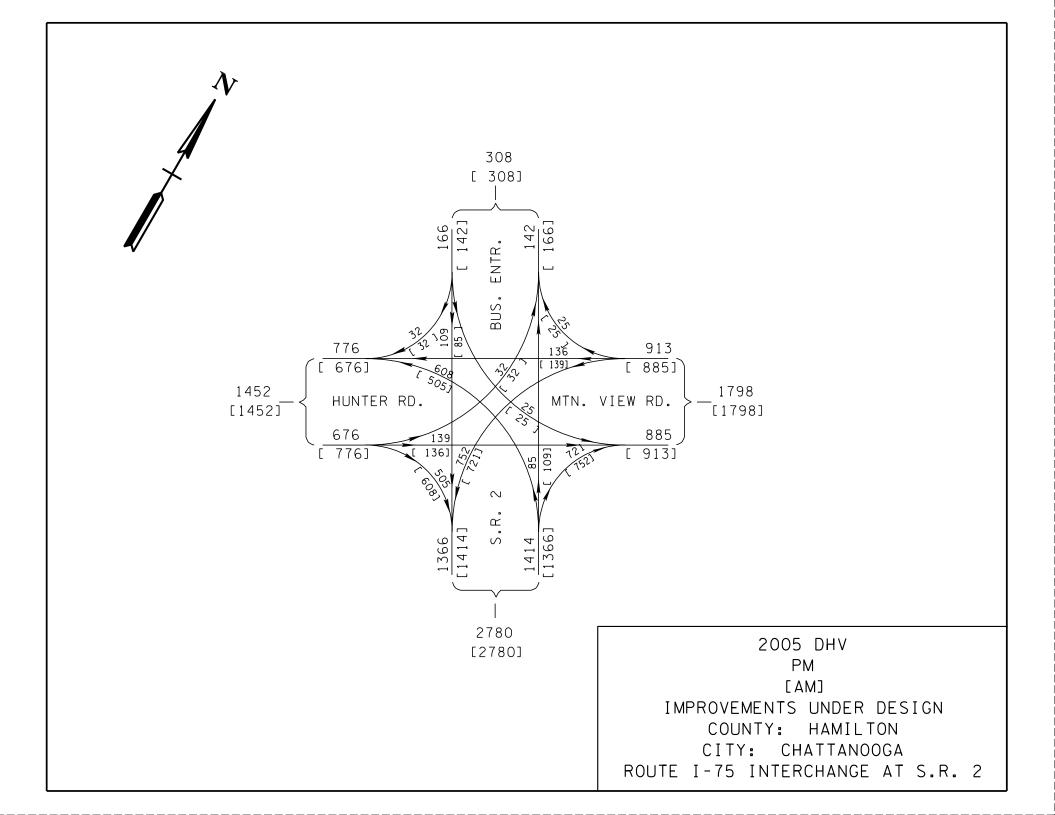
2025 DHV PM [AM]

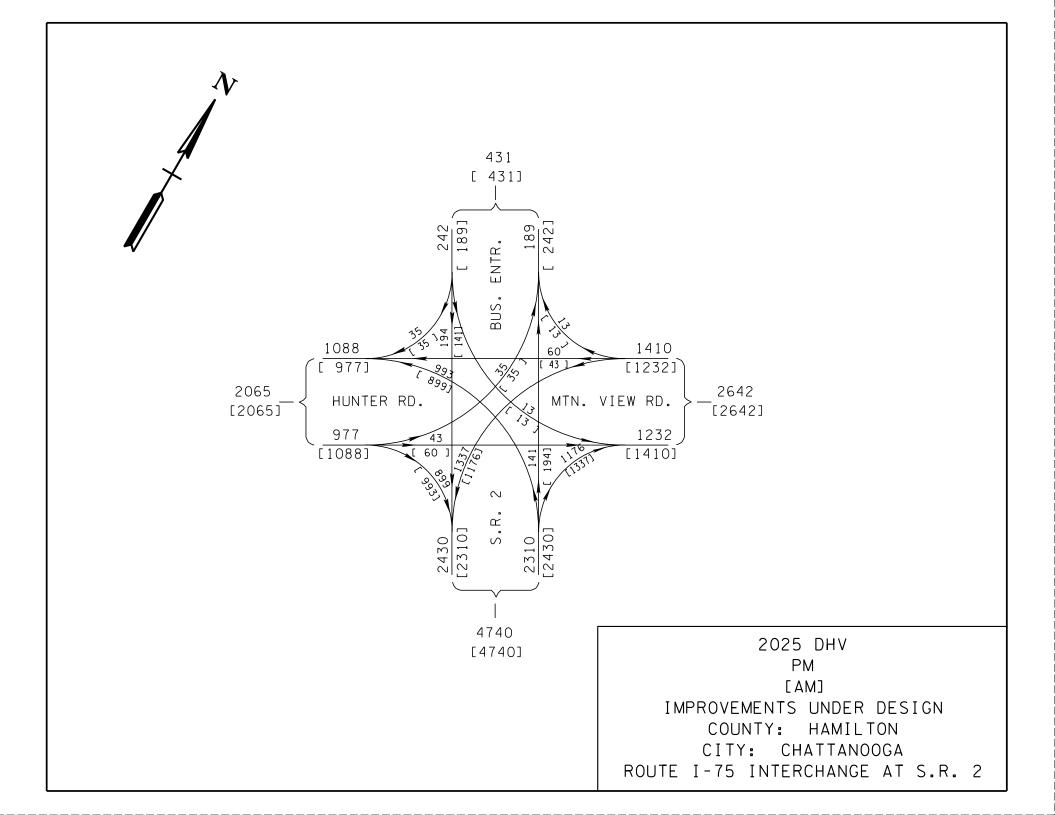
IMPROVEMENTS UNDER DESIGN

COUNTY: HAMILTON

CITY: CHATTANOOGA

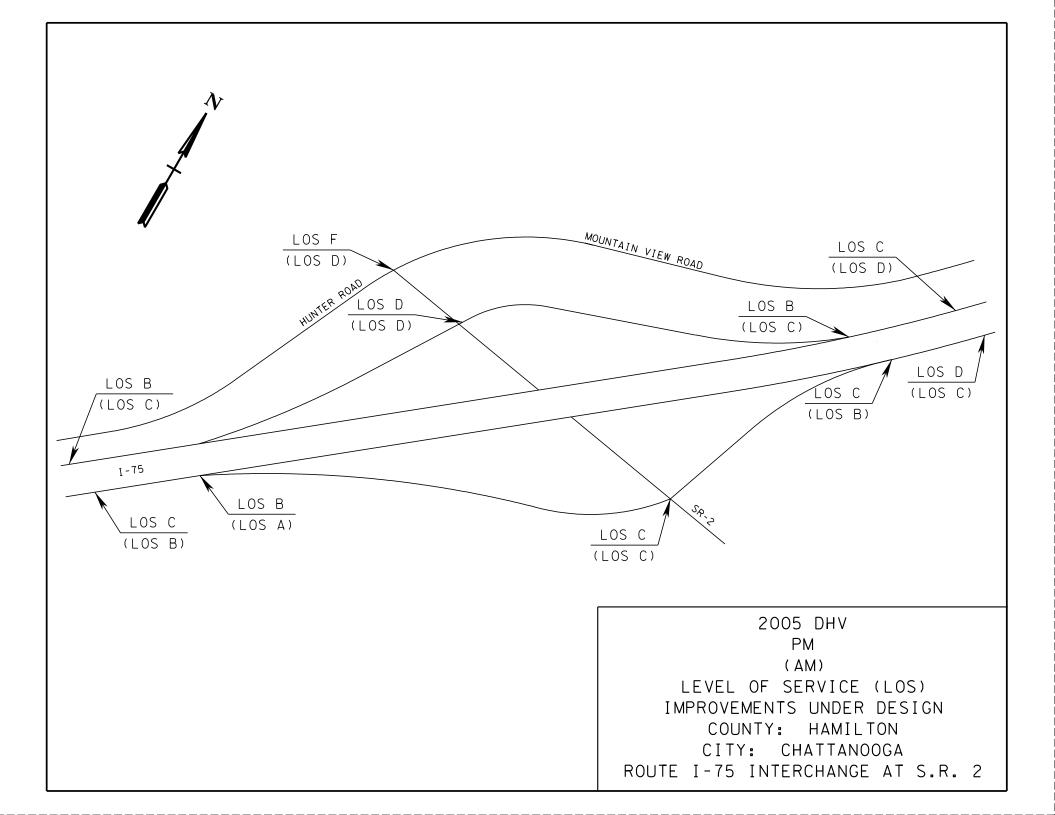
ROUTE I-75 INTERCHANGE AT S.R. 2

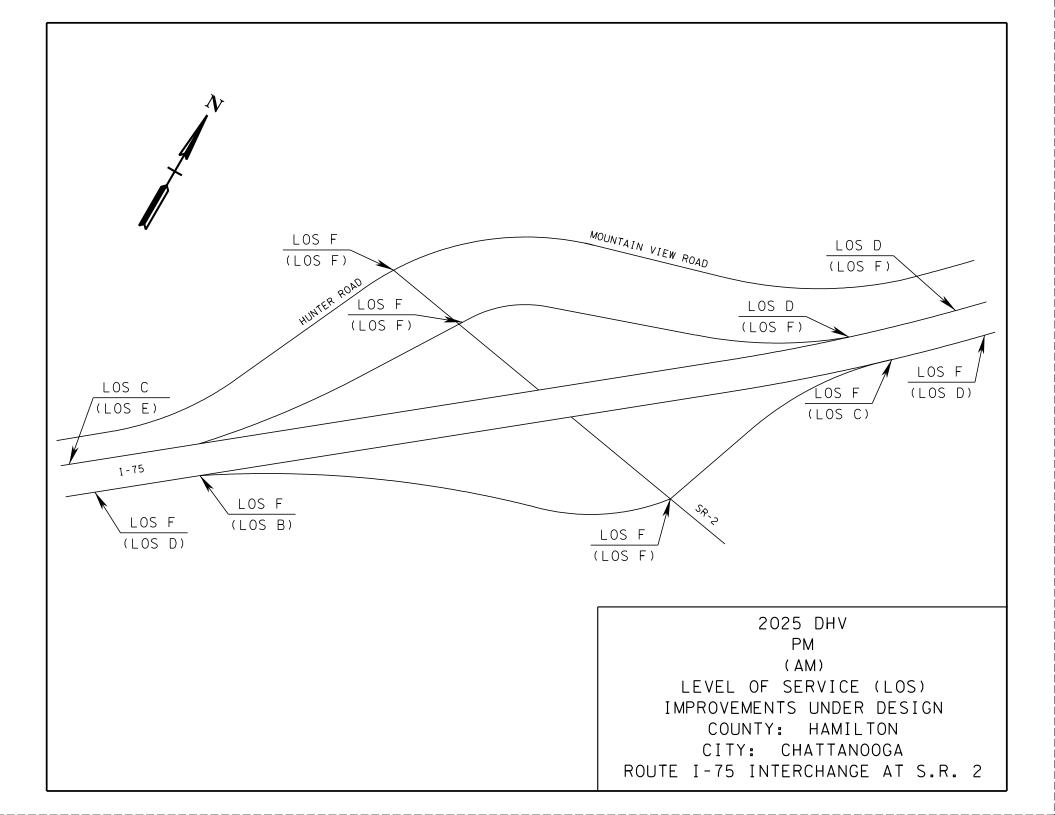


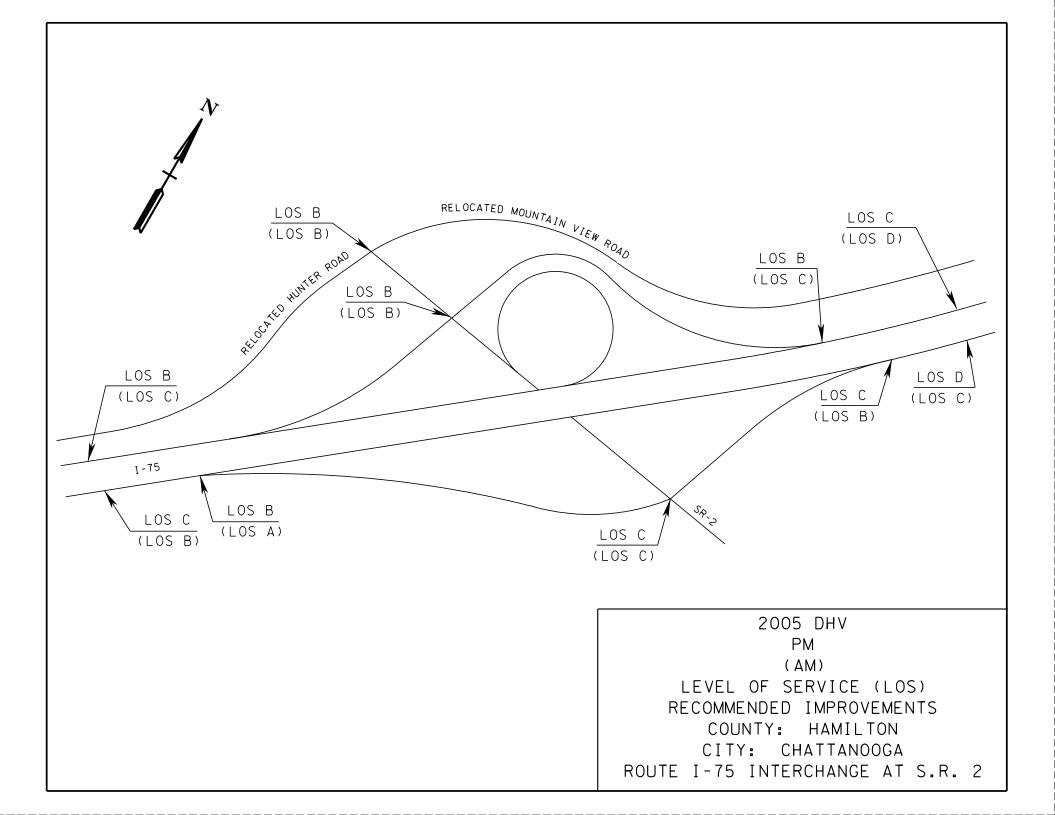


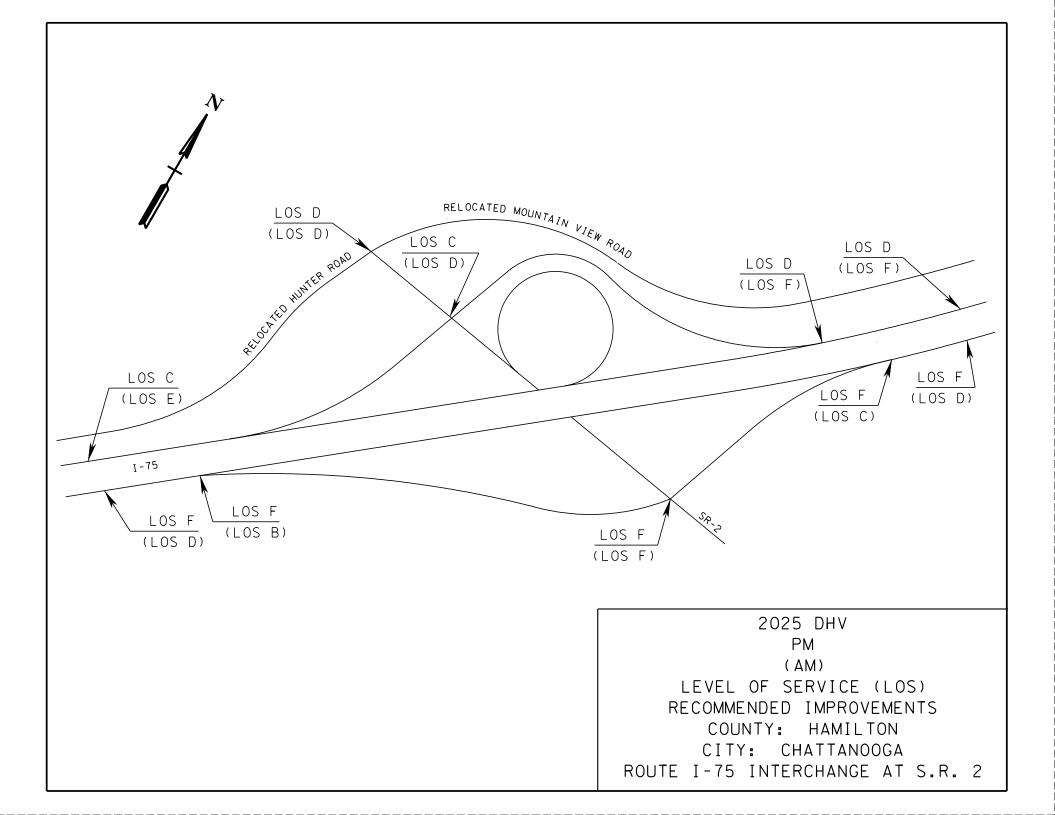
APPENDIX B

LEVEL OF SERVICE: IMPROVEMENTS UNDER DESIGN & RECOMMENDED IMPROVEMENTS









APPENDIX C

CAPACITY ANALYSIS: IMPROVEMENTS UNDER DESIGN

FREEWAY SEGMENTS

Center For Microcomputers In Transportation

University of Florida

512 Weil Hall

Gainesville, FL 32611-2083

Ph: (904) 392-0378

File Name 1AM2025.HC3

Location..... 1 2025

From/To..... tc

Time of Analysis.... am

Date of Analysis.... 01/17/01

Other Information....

A. Geometrics and Traffic Input Data	Dir 1	Dir 2
Traffic Volume (vph)	9160	6170
Peak-Hour Factor or Peak 15-min Volume	0.95	0.95
Percentage of Trucks	17.0	17.0
Percentage of Recreational Vehicles	0.0	0.0
Number of Lanes	, 5	4
Free-Flow Speed (mph)	65.0	65.0
Lane Width (ft)	12.0	12.0
Obstructions-No (0), One (1) or Both (2)	0	0
Distance from Pavement Edge (ft)		
Driver Population Factor	1.00	1.00

			E	E	·F	F	F
	Terrain	n Type	T	R	HV	W	P
Dir	1	LEVEL	1.50		0.922	1.00	1.00
Dir	2		1.50		0.922	1.00	1.00

C. Level of Service Results	Dir 1	Dir 2
Maximum Service Flow (MSF) (pcphpl)	2092	1762
Level of Service (LOS)	E	D
Projected Speed at Flow Rate (mph)	58.4	63.3
Density (pc/mi/ln)	35.82	27.82
Density (veh/mi/ln)	33.01	25.64
Speed of prevailing traffic (mph)	58.4	63.3

HCS: Freeways	Release 2.1g	Page 1
==========		

Center For Microcomputers In Transportation

University of Florida

512 Weil Hall

Gainesville, FL 32611-2083

Ph: (904) 392-0378

File Name 1PM2025.HC3

Location..... 1 2025

From/To....

Analyst.....tc

Time of Analysis.... am

Date of Analysis.... 01/17/01

Other Information....

A. Geometrics and Traffic Input Data	Dir 1	Dir 2
Traffic Volume (vph)	9160	6170
Peak-Hour Factor or Peak 15-min Volume	0.95	0.95
Percentage of Trucks	17.0	17.0
Percentage of Recreational Vehicles	0.0	0.0
Number of Lanes	4	5
Free-Flow Speed (mph)	65.0	65.0
Lane Width (ft)	12.0	12.0
Obstructions-No (0), One (1) or Both (2)	0	0
Distance from Pavement Edge (ft)		
Driver Population Factor	1.00	1.00

			E	E	F	F	F
	Terrain	ı Type	T	R	HV	W	P
Dir	1	LEVEL	1.50		0.922	1.00	1.00
Dir	2		1.50		0.922	1.00	1.00

C. Level of Service Results	Dir 1	Dir 2
Maximum Service Flow (MSF) (pcphpl)	* 2615	1409
Level of Service (LOS)	*F	С
Projected Speed at Flow Rate (mph)		65.0
Density (pc/mi/ln)		21.68
Density (veh/mi/ln)		19.98
Speed of prevailing traffic (mph)		65.0

^{*} Speed and density are highly variable for LOS F

^{*} Maximum Service Flow must not be greater than 2300 for 4 lanes.

Center For Microcomputers In Transportation

University of Florida

512 Weil Hall

Gainesville, FL 32611-2083

Ph: (904) 392-0378

File Name 5AM2025.HC3

Location..... 5 2025

From/To.....

Analyst..... tc Time of Analysis.... am

Date of Analysis.... 01/17/01

Other Information....

A. Geometrics and Traffic Input Data	Dir 1	Dir 2
Traffic Volume (vph)	4910	7050
Peak-Hour Factor or Peak 15-min Volume	0.95	0.95
Percentage of Trucks	17.0	17.0
Percentage of Recreational Vehicles	0.0	0.0
Number of Lanes	3	3
Free-Flow Speed (mph)	65.0	65.0
Lane Width (ft)	12.0	12.0
Obstructions-No (0), One (1) or Both (2)	. 0	0
Distance from Pavement Edge (ft)		
Driver Population Factor	1.00	1.00

			E	E	F	F	F
	Terrain	n Type	$^{-}$ T	R	HV	W	P
Dir	1	LEVEL	1.50		0.922	1.00	1.00
Dir	2.		1.50		0.922	1 00	1 00

C. Level of Service Results	Dir 1	Dir 2
Maximum Service Flow (MSF) (pcphpl)	1869	* 2684
Level of Service (LOS)	D	*F
Projected Speed at Flow Rate (mph)	62.2	
Density (pc/mi/ln)	30.04	
Density (veh/mi/ln)	27.69	
Speed of prevailing traffic (mph)	62.2	

^{*} Speed and density are highly variable for LOS F

^{*} Maximum Service Flow must not be greater than 2300 for 3 lanes.

Center For Microcomputers In Transportation

University of Florida

512 Weil Hall

Gainesville, FL 32611-2083

Ph: (904) 392-0378

File Name 1AM2005.HC3

Location..... 1 2005

From/To.....

Analyst..... tc

Time of Analysis.... am

Date of Analysis.... 01/17/01

Other Information....

A. Geometrics and Traffic Input Data	Dir 1	Dir 2
Traffic Volume (vph)	5744	3846
Peak-Hour Factor or Peak 15-min Volume	0.95	0.95
Percentage of Trucks	17.0	17.0
Percentage of Recreational Vehicles	0.0	0.0
Number of Lanes	. 5	4
Free-Flow Speed (mph)	65.0	65.0
Lane Width (ft)	12.0	12.0
Obstructions-No (0), One (1) or Both (2)	0	0
Distance from Pavement Edge (ft)		
Driver Population Factor	1.00	1.00

			E	E	F	F	F
	Terrain	n Type	${f T}$	R	HV	W	P
Dir	1	LEVEL	1.50		0.922	1.00	1.00
Dir	2		1.50		0.922	1.00	1.00

C. Level of Service Results	Dir 1	Dir 2
Maximum Service Flow (MSF) (pcphpl)	1312	1098
Level of Service (LOS)	В	С
Projected Speed at Flow Rate (mph)	65.0	65.0
Density (pc/mi/ln)	20.18	16.89
Density (veh/mi/ln)	18.60	15.57
Speed of prevailing traffic (mph)	65.0	65.0

RAMP JUNCTIONS

HCS: Ramps Release 2.1g Page 1

Center For Microcomputers In Transportation

University of Florida

512 Weil Hall

Gainesville, FL 32611-2083

Ph: (904) 392-0378

Analyst..... tc

Time of Analysis..... 2025 pM

Driver Population Factor.... 1.00
Date of Analysis..... 1/17/1

Other Information.....

A. Ramp Configuration Input Data

		Analysis	Upstream	
	Freeway	Ramp	Ramp	
Traffic Volume	9160	2470	360	
Peak-Hour Factor	0.95	0.95	0.95	
Percentage HV's	11.0	11.0	11.0	
Percentage RV's	0.0	0.0	0.0	
Number of Lanes	. 4	1		
Lane Width (ft)	12.0	12.0	12.0	
Free-flow Speed (mph)	65	45		
Obstructions	0	0	2	
Distance from Edge (ft)			0.0	
Type of Ramp		OFF	ON	

Analysis ramp is a right-hand ramp. Length of deceleration lane is 2000 ft. Distance to upstream ramp is 2200 ft.

HCS: Ramps	Release 2.1g		Page 2	
			========	=
File Name		. 2DPM2025.HC5		

		E	E	F	F	F
	Terrain Type	T	R	HV	W	P
Freeway	LEVEL	1.50		0.948	1.00	1.00
Ramp		1.50		0.948	1.00	1.00
Upstrm		1.50		0.948	0.86	1.00

C. Level of Service Results

	Туре	Vol (vph)	FFS (mph)	Lanes	Lane Width (ft)	f W	f HV	f P	Vol (pcph)
Freeway Ramp Upstream	OFF ON	9160 2470 360	65 45	4 1	12.0 12.0 12.0	1.00 1.00 0.86	0.948 0.948 0.948	1.00 1.00 1.00	10172 2743 465

Estimation of V12:

PFD = 0.436 Using Equation: 10 V12 = 5982

Capacity Checks:

VFO+VR = 10172 V12 = 5982

LOS, Speed, and Density:

Level of Service (LOS)

Computed Density (pc/mi/ln) *

Computed Speed (mph) *

*Unstable flow

HCS: Ramps Release 2.1g Page 1

Center For Microcomputers In Transportation

University of Florida

512 Weil Hall

Gainesville, FL 32611-2083

Ph: (904) 392-0378

Analyst..... tc

Time of Analysis..... 2025 AM

Driver Population Factor.... 1.00
Date of Analysis...... 1/17/1

Other Information.....

A. Ramp Configuration Input Data

	Freeway	Analysis Ramp	Upstream Ramp	
Traffic Volume	7050	. 360	2470	
Peak-Hour Factor	0.95	0.95	0.95	
Percentage HV's	11.0	11.0	11.0	
Percentage RV's	0.0	0.0	0.0	
Number of Lanes	3	1		
Lane Width (ft)	12.0	16.0	16.0	
Free-flow Speed (mph)	65	45		
Obstructions	0	0	2	
Distance from Edge (ft)			0.0	
Type of Ramp		OFF	ON	

Analysis ramp is a right-hand ramp. Length of deceleration lane is 600 ft. Distance to upstream ramp is 2200 ft.

HCS:	Ramps	Release	2.1g	e e	-		Page	2
=====	-======	=======		========		=======	=====	===
File	Name			4DIV2025	. HC5			

		Ē	E	F	F	F
	Terrain Type	T	R	HV	M	P
						
Freeway	LEVEL	1.50		0.948	1.00	1.00
Ramp		1.50		0.948	1.00	1.00
Upstrm		1.50		0.948	0.86	1.00

C. Level of Service Results

	Туре	Vol (vph)	FFS (mph)		Lane Width (ft)	f W	f HV	f P	Vol (pcph)
Freeway Ramp Upstream	OFF	7050 360 2470	65 45	3	12.0 16.0 16.0	1.00 1.00 0.86	0.948 0.948 0.948	1.00	7829 400 3190
Estimation of V12:									
PFD = 0.546 Using Equation: 7 V12 = 4455 Capacity Checks:									

VFO+VR = 7829 V12 = 4455

LOS, Speed, and Density:

Level of Service (LOS)
Computed Density (pc/mi/ln) *
Computed Speed (mph) *

^{*}Unstable flow

HCS: Ramps Release 2.1g

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University of Florida

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Page 1

File Name 4DIVPM2025.HC5

Location..... 4 Diverge

Analyst..... tc

Time of Analysis..... 2025 PM

Driver Population Factor.... 1.00

Date of Analysis..... 1/17/1

Other Information.....

A. Ramp Configuration Input Data

	Freeway	Analysis Ramp	Upstream Ramp	
Traffic Volume	4910	410	1670	
Peak-Hour Factor	0.95	0.95	0.95	
Percentage HV's	11.0	11.0	11.0	
Percentage RV's	0.0	0.0	0.0	
Number of Lanes	3	1		
Lane Width (ft)	12.0	16.0	16.0	
Free-flow Speed (mph)	65	45		
Obstructions	0	0	2	
Distance from Edge (ft)			0.0	
Type of Ramp		OFF	ON	

Analysis ramp is a right-hand ramp. Length of deceleration lane is 600 ft. Distance to upstream ramp is 2200 ft.

HCS:	Ramps	Release	2.1g		Page	2
====	=======		=======		=====	===
File	Name			4DTVPM2025 HC5		

		E	E	F	F	F
T€	errain Type	T	R	HV	W	P
Freeway	LEVEL	1.50		0.948	1.00	1.00
Ramp		1.50		0.948	1.00	1.00
Upstrm		1.50		0.948	0.86	1.00

C. Level of Service Results

	Type			Lanes	Width		f HV	_	Vol (pcph)
Freeway Ramp Upstream	OFF	410	45		16.0	1.00	0.948 0.948 0.948	1.00	455
Estimation of V12:									
PFD =	0.603		Usir	ng Equ	ation:	7	V12	= 3	468
Capacity Ch	ecks:								
VFO+VR =	54	53	v:	12 =	3468				
LOS, Speed, and Density:									
Level of Service (LOS) D Computed Density (pc/mi/ln) 29 Computed Speed (mph) 57									

HCS: Ramps Release 2.1g

Page 1

Center For Microcomputers In Transportation

University of Florida

512 Weil Hall

Gainesville, FL 32611-2083

Ph: (904) 392-0378

File Name 4PM22025.HC5

Location..... 4dpm2025

Analyst.....tc

Time of Analysis..... pm Driver Population Factor.... 1.00

Date of Analysis..... 1/17/1

Other Information.....

A. Ramp Configuration Input Data

	Freeway	Analysis Ramp	Downstream Ramp
Traffic Volume	7050	360	2470
Peak-Hour Factor	0.95	0.95	0.95
Percentage HV's	11.0	11.0	11.0
Percentage RV's	0.0	0.0	0.0
Number of Lanes	3	1	
Lane Width (ft)	12.0	12.0	12.0
Free-flow Speed (mph)	65	50	
Obstructions	0	0	0
Distance from Edge (ft)			
Type of Ramp		ON	OFF

Analysis ramp is a right-hand ramp. Length of acceleration lane is 1500 ft. Distance to downstream ramp is 2200 ft.

HCS:	Ramps	Release	2.1g	Page	2
====	=======	=======		=====	===
File	Name		4PM22025.HC5		

		E	E	F	F	F
	Terrain Type	T	R	HV	W	P
Freeway	LEVEL	1.50		0.948	1.00	1.00
Ramp		1.50		0.948	1.00	1.00
Dnstrm	•	1.50		0.948	1.00	1.00

C. Level of Service Results

	Type	Vol (vph)	FFS (mph)		Lane Width (ft)	f W	f HV	f P	Vol (pcph)
Freeway Ramp Downstream	ON OFF	7050 360 2470	65 50	3	12.0 12.0 12.0	1.00	0.948 0.948 0.948	1.00	7829 400 2743
Estimation	Estimation of V12:								
PFM =	0.619		Usi	ng Equ	ation:	2	V12	. = 4	850

Capacity Checks:

VFO = 8229 VR12 = 5250

LOS, Speed, and Density:

Level of Service (LOS)
Computed Density (pc/mi/ln)
Computed Speed (mph)

F

*

^{*}Unstable flow

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Ph: (904) 392-0378

File Name 4AMM2025.HC5

Analyst..... tc

Time of Analysis..... am
Driver Population Factor.... 1.00

Other Information.....

A. Ramp Configuration Input Data

			Downstream	
	Freeway	Ramp	Ramp	
Traffic Volume	4910	410	1670	
Peak-Hour Factor	0.95	0.95	0.95	
Percentage HV's	11.0	11.0	11.0	
Percentage RV's	0.0	0.0	0.0	
Number of Lanes	3	1		
Lane Width (ft)	12.0	12.0	12.0	
Free-flow Speed (mph)	65	50		
Obstructions	0	0	0	
Distance from Edge (ft)				
Type of Ramp		ON	OFF	

Analysis ramp is a right-hand ramp. Length of acceleration lane is 1500 ft. Distance to downstream ramp is 2200 ft.

HCS:	Ramps	Release	2.1g	Page	2
====:	======	=======		=====	===
File	Name		4AMM2025.HC5		

		E	E	F	F	F
	Terrain Type	T	R	HV	W	P
Freeway	y LEVEL	1.50		0.948	1.00	1.00
Ramp		1.50		0.948	1.00	1.00
Dnstrm		1.50		0.948	1.00	1.00

C. Level of Service Results

	Туре	Vol (vph)	FFS (mph)		Lane Width (ft)	£ W	f HV	f P	Vol (pcph)
Freeway Ramp Downstream	ON OFF	4910 410 1670	65 50	3	12.0 12.0 12.0	1.00 1.00 1.00	0.948 0.948 0.948	1.00 1.00 1.00	5453 455 1855
Estimation	of W1	o .							

Estimation of V12:

PFM = 0.619 Using Equation: 2 V12 = 3378

Capacity Checks:

VFO = 5908 VR12 = 3833

LOS, Speed, and Density:

Level of Service (LOS) C
Computed Density (pc/mi/ln) 26
Computed Speed (mph) 57

HCS: Ramps Release 2.1g Page 1

G to Day Minasana Ta Masana antiti

Center For Microcomputers In Transportation

University of Florida

512 Weil Hall

Gainesville, FL 32611-2083

Ph: (904) 392-0378

Analyst..... tc

Time of Analysis..... 2005 pM

Driver Population Factor.... 1.00
Date of Analysis..... 1/17/1

Other Information.....

A. Ramp Configuration Input Data

	Freeway	Analysis Ramp	Upstream Ramp	
Traffic Volume	5744	1550	186	·
Peak-Hour Factor	0.95	0,95	0.95	
Percentage HV's	11.0	11.0	11.0	
Percentage RV's	_0.0	0.0	0.0	
Number of Lanes	4	2		
Lane Width (ft)	12.0	12.0	12.0	
Free-flow Speed (mph)	65	45		
Obstructions	0	0	2	
Distance from Edge (ft)			0.0	
Type of Ramp		OFF	ON	

Analysis ramp is a right-hand ramp. Length of deceleration lane is 2000 ft. Distance to upstream ramp is 2200 ft.

HCS:	Ramps	Release	2.1g		Page	2
====	=======		=======		=====	===
File	Name			2DPM2005.HC5		

		E	E	F	F	F
Ţ	Terrain Type	T	R	HV	W	P
-						
Freeway	LEVEL	1.50		0.948	1.00	1.00
Ramp		1.50		0.948	1.00	1.00
Upstrm		1.50		0.948	0.86	1.00

C. Level of Service Results

	Туре	Vol (vph)		of Lane nes Width (ft)				Vol (pcph)
Freeway Ramp Upstream	OFF ON			12.0	1.00	0.948 0.948 0.948	1.00	1721
Estimation of V12:								
PFD = 0.260 Using Equation: Special App. V12 = 2932								
Capacity C	hecks:							
VFO+VR	= 63	79	V12	- = 2932				
LOS, Speed, and Density:								
Level c Compute Compute	d Dens	sity (p	oc/mi/ln	.)	13 55	L		

HCS: Ramps Release 2.1g Page 1

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File Name 4AMM2005.HC5

Location..... 4dam2005

Other Information.....

A. Ramp Configuration Input Data

	Freeway	Analysis Ramp	Downstream Ramp
Traffic Volume	3070	254	1030
Peak-Hour Factor	0.95	0.95	0.95
Percentage HV's	11.0	11.0	11.0
Percentage RV's	0.0	0.0	0.0
Number of Lanes	3	1	
Lane Width (ft)	12.0	12.0	12.0
Free-flow Speed (mph)	65	50	
Obstructions	0	0	0
Distance from Edge (ft)			
Type of Ramp		ON	OFF

Analysis ramp is a right-hand ramp. Length of acceleration lane is 1500 ft. Distance to downstream ramp is 2200 ft.

HCS:	Ramps	Release	2.1g		Page	2
====		========	========		 =====	===
File	Name		<i>.</i>	4AMM2005.HC5		

		E	E	F	F	F
	Terrain Type	T	R	HV	W	P
Freeway	LEVEL	1.50		0.948	1.00	1.00
Ramp		1.50		0.948	1.00	1.00
Dnstrm		1.50		0.948	1.00	1.00

C. Level of Service Results

	Type			#of Lanes			f HV	f P	Vol (pcph)
Freeway Ramp Downstream	ON OFF	3070 254 1030	65 -50	3	12.0 12.0 12.0	1.00	0.948 0.948 0.948	1.00 1.00 1.00	3409 282 1144
Estimation	of V1	2:							
PFM =	0.619		Usin	ıg Equ	ation:	2	V12	= 2	112
Capacity Checks:									
VFO =	3691	*.	VR12	2 =	2394				
LOS, Speed, and Density:									

В

15 60

Level of Service (LOS)

Computed Density (pc/mi/ln)
Computed Speed (mph)

HCS:	Ramps	Release	2.1g	Page 1
====	=======			======
~ .	> 6		orthogonal Transmission and a finite form	

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Ph: (904) 392-0378

 File Name
 4PM22005.HC5

 Location
 4dpm2005

 Analyst
 tc

 Time of Analysis
 pm

 Driver Population Factor
 1.00

Date of Analysis..... 1/17/1

Other Information.....

A. Ramp Configuration Input Data

	Freeway	Analysis Ramp	Downstream Ramp	_
Traffic Volume	4380	186	1550	
Peak-Hour Factor	0.95	0.95	0.95	
Percentage HV's	11.0	11.0	11.0	
Percentage RV's	0.0	0.0	0.0	
Number of Lanes	3	1		
Lane Width (ft)	12.0	12.0	12.0	
Free-flow Speed (mph)	65	50		
Obstructions	0	0	0	
Distance from Edge (ft)				
Type of Ramp		ON	OFF	

Analysis ramp is a right-hand ramp. Length of acceleration lane is 1500 ft. Distance to downstream ramp is 2200 ft.

HCS: Ramps	Rele	ase 2.	1g						Page 2
File Name .								:====:	======
		В.	. Ad	justme	ent Fact	ors	•		
•									
Terr	ain Ty	pe	E T	E R		F W	F P	_	
Freeway Ramp Dnstrm	LEV	EL :	1.50 1.50		0.948 0.948	3 1.0		0	
		C. :	Level	of Se	ervice 1	Results	5 .		
	Type	(vph)	FFS	#of Lanes		f W	f HV	f P	Vol (pcph)
Freeway Ramp Downstream			65 50	3 1	12.0 12.0 12.0	1.00 1.00 1.00	0.948 0.948 0.948	1.00 1.00 1.00	4864 207 1721
Estimation	of V1	2:							
PFM =	0.619		Usi	ng Equ	ation:	2	V12	= 3	3013
Capacity Cl	necks:								
VFO =	5071		VR1	2 =	3220				
LOS, Speed	, and		y:						
Level o Compute Compute	d Dens	ity (p	oc/mi	/ln)		21 59			

HCS: Ramps Release 2.1g	Page 1
Center For Microcomputers In Tra University of Florida 512 Weil Hall Gainesville, FL 32611-2083 Ph: (904) 392-0378	insportation
File Name	Diverge c 005 AM .00

A. Ramp Configuration Input Data

	Freeway	Analysis Ramp	Upstream Ramp	
Traffic Volume	4380 0.95	186	1550 0.95	
Peak-Hour Factor Percentage HV's	11.0	11.0	11.0	
Percentage RV's Number of Lanes	0.0 3	0.0	0.0	
Lane Width (ft) Free-flow Speed (mph)	12.0 65	12.0 45	12.0	
Obstructions	0	0	2	
Distance from Edge (ft) Type of Ramp		OFF	ON	

Analysis ramp is a right-hand ramp. Length of deceleration lane is 600 ft. Distance to upstream ramp is 2200 ft.

HCS:	Ramps	Release	2.1g				Page 2	
====	========			=======	=====	=========	=======	=

File Name 4DIV2005.HC5

B. Adjustment Factors

		E	E	F	F	F
	Terrain Type	T	R	HV	M	P
			-			
Freeway	LEVEL	1.50		0.948	1.00	1.00
Ramp		1.50		0.948	1.00	1.00
Upstrm		1.50		0.948	0.86	1.00

C. Level of Service Results

	Type	Vol (vph)		Lanes	Lane Width (ft)		f HV	f P	Vol (pcph)
Freeway Ramp Upstream		186			12.0 12.0 12.0	1.00	0.948 0.948 0.948	1.00	207
Estimation of V12:									
PFD =	PFD = 0.629		Using Equation:			7	V12	= 3	136
Capacity Checks:									
VFO+VR = 4864 V				12 =	3136				
LOS, Speed, and Density:									
Level of Service (LOS) Computed Density (pc/mi/ln) Computed Speed (mph)						2 6 5 8	5		

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Ph: (904) 392-0378

File Name 4DIV05PM.HC5
Location....... 4 Diverge
Analyst.......... tc
Time of Analysis................................ 2005 AM

Driver Population Factor.... 1.00
Date of Analysis..... 1/17/1

Other Information....

A. Ramp Configuration Input Data

	Freeway	Analysis Ramp	Upstream Ramp	
Traffic Volume	3070	254	1030	
Peak-Hour Factor	0.95	0.95	0.95	
Percentage HV's	11.0	11.0	11.0	
Percentage RV's	0.0	0.0	0.0	
Number of Lanes	3	1		
Lane Width (ft)	12.0	12.0	12.0	
Free-flow Speed (mph)	65	45		
Obstructions	0	0	2	
Distance from Edge (ft)			0.0	
Type of Ramp		OFF	ON	

Analysis ramp is a right-hand ramp. Length of deceleration lane is 600 ft. Distance to upstream ramp is 2200 ft.

HCS:	Ramps	Release	2.lg	Page	2
====	=======	-=======		=====	===
File	Name		4DIV05PM.HC5		

B. Adjustment Factors

		E	E	F	F	F
Terrain Type		\mathbf{T}	R	HV	W	P
-						
Freeway	LEVEL	1.50		0.948	1.00	1.00
Ramp		1.50		0.948	1.00	1.00
Upstrm		1.50		0.948	0.86	1.00

C. Level of Service Results

	Type	Vol (vph)	FFS (mph)		Lane Width (ft)	f W	f HV	f P	Vol (pcph)
Freeway Ramp Upstream	OFF ON	3070 254 1030	65 45	3	12.0 12.0 12.0	1.00 1.00 0.86	0.948 0.948 0.948	1.00 1.00 1.00	3409 282 1330

Estimation of V12:

PFD = 0.662 Using Equation: 7 V12 = 2351

Capacity Checks:

VFO+VR = 3409 V12 = 2351

LOS, Speed, and Density:

Level of Service (LOS) B
Computed Density (pc/mi/ln) 19
Computed Speed (mph) 58

HCS: Ramps Release 2.1g Page 1

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Other Information.....

A. Ramp Configuration Input Data

	Freeway	Analysis Ramp	Upstream Ramp	
Traffic Volume	6170	1670	410	
Peak-Hour Factor	0.95	0.95	0.95	
Percentage HV's	11.0	11.0	11.0	
Percentage RV's	0.0	0.0	0.0	
Number of Lanes	4	2		
Lane Width (ft)	12.0	12.0	12.0	
Free-flow Speed (mph)	65	45		
Obstructions	0	0	2	
Distance from Edge (ft)			0.0	
Type of Ramp		OFF	ON	

Analysis ramp is a right-hand ramp. Length of deceleration lane is 2000 ft. Distance to upstream ramp is 2200 ft.

HCS:	Ramps	Release	2.1g			Page	2
====	=======	=======		=======================================	=======================================		===
File	Name			2DAM2025.HCF	5		

B. Adjustment Factors

		E	E	F	F	F
T	errain Type	T	R	HV	M	P
-						
Freeway	LEVEL	1.50		0.948	1.00	1.00
Ramp		1.50		0.948	1.00	1.00
Upstrm		1.50		0.948	0.86	1.00

C. Level of Service Results

	Type			anes	Width		f HV		Vol (pcph)
Freeway Ramp Upstream	OFF	1670	45	2	12.0	1.00	0.948 0.948 0.948	1.00	1855
Estimation of V12:									
PFD = 0.260 Using Equation: Special App. V12 = 3154									
Capacity Ch	necks:								
VFO+VR :	= 68	52	V12	=	3154				
LOS, Speed	, and	Densit	:y:						
Level of Service (LOS) B Computed Density (pc/mi/ln) 13 Computed Speed (mph) 54									

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Other Information.....

A. Ramp Configuration Input Data

	Freeway	Analysis Ramp	Upstream Ramp	
Traffic Volume	3846	1030	254	
Peak-Hour Factor	0.95	0.95	0.95	
Percentage HV's	11.0	11.0	11.0	
Percentage RV's	0.0	0.0	0.0	
Number of Lanes	4	2		
Lane Width (ft)	12.0	12.0	12.0	
Free-flow Speed (mph)	65	45		
Obstructions	0	0	2	
Distance from Edge (ft)			0.0	
Type of Ramp		OFF	ON	

Analysis ramp is a right-hand ramp. Length of deceleration lane is 2000 ft. Distance to upstream ramp is 2200 ft.

HCS:	Ramps	Release	2.1g	Page	2
====	======	=======		:=====	===
File	Name		2DAM05 HC5		

B. Adjustment Factors

		E	E	F	F	F
Terrain Type		T	R	HV	W	P ,
Freeway	LEVEL	1.50		0.948	1.00	1.00
Ramp		1.50		0.948	1.00	1.00
Upstrm		1.50		0.948	0.86	1.00

C. Level of Service Results

	Type			Lanes	Lane Width (ft)			f P	Vol (pcph)
Freeway Ramp Upstream	OFF ON			4 2		1.00	0.948 0.948 0.948		1144
Estimation	of V1	2:							
PFD =	0.260	τ	Jsing	Equat	ion: Sp	ecial	App.	V12 =	1957
Capacity Ch	necks:								
VFO+VR =	VFO+VR = 4271 V12 = 1957								
LOS, Speed, and Density:									

Α

3 56

Level of Service (LOS)

Computed Density (pc/mi/ln) Computed Speed (mph)

Center For Microcomputers In Transportation

Streets: (E-W) SR-2

(N-S) HUNTER/MT VIEW RD File Name: AAM05IM.HC9

Analyst: TC Area Type: Other

2-7-1 2005 AM

Comment: IMP UNDER DESIGN

	E	astboı	ınd	Wes	tbour	nd	Nor	thbou	ınd	Sou	ıthbou	and		
	L	T	R	L	T	R	L	T	R	L	T	R		
No. Lanes 1 > 1 < 1 1														
Volumes	25							136			139	25		
Lane W (ft)	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0			
RTOR Vols	İ		0	}		350	(180			0		
Lost Time	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00		
	Signal Operations													

			Sign	nal	Operat	ions	3				
Phas	se Combination	ı 1	2	3	4			5	6	7	8
EB	Left		*		İ	NB	Left	*	*		
	Thru		*				Thru		*		
	Right		*		Ì		Right		*		
	Peds				İ		Peds				
WB	Left	*				SB	Left	* ,	*		
	Thru	*				ĺ	Thru		*		
	Right	*					Right		*		
	Peds					Ì	Peds				
NB	Right	*				EB	Right				
SB	Right					WB	Right				
Gre	_	5.0A	5.0A			Gre	en 2	25.0A	20.0A		
Yel	low/AR	3.0	3.0			Yel	low/AR	3.0	3.0		
		7 sec	s Phase	COI	mbinat	ion	order:	#1 #2	#5 #6		

						O			
	Lane	Group:	Intersect: Adj Sat	v/c	g/C	_	* 0.7	Approac	
	Mvmts	Cap	Flow	Ratio	Ratio	Delay	LOS	Delay	LOS
EB	L	102	1770	0.206	0.057	25.4	D	62.5	F
	LTR	106	1839	0.956	0.057	80.0	F		
	R	91	1583	0.297	0.057	25.9	D		
WB	L	509	1770	1.046	0.287	64.2	F	48.7	E
,,	T	535	1863	0.215	0.287	15.2	C		
	R	455	1583	0.932	0.287	38.3	D		
NB	L	710	1770	0.048	0.552	5.9	В	10.5	В
	T	428	1863	0.334	0.230	18.2	C		
	R	874	1583	0.516	0.552	8.3	В		
SB	L	741	1770	1.024	0.552	42.4	E	38.0	D
	TR	419	1821	0.411	0.230	18.8	С		
		Int	ersection	Delay =	37.2 se	c/veh In	tersec	tion LOS	= D

Lost Time/Cycle, L = 9.0 sec Critical v/c(x) = 1.035

Center For Microcomputers In Transportation

Streets: (E-W) SR-2 Analyst: TC (N-S) HUNTER/MT VIEW RD File Name: AAM05IM.HC9

Area Type: Other

2-7-1 2005 AM

Comment: IMP UNDER DESIGN

=========	=====	=====	=====	=====	=====	=====	=====	=====	=====	=====	=====	====
	Ea	astbou	ınd	Wes	tbour	ıd	Nor	thbou	ınd	Sou	ıthboı	ınd
	L	T	R	L	T	R	L	T	R	L	T	R
•												
No. Lanes	1 :	> 1 <	< 1	1	1	1	1	1	1	1	1 <	< 0
Volumes	25	85	32	505	109	752	32	136	608	721	139	25
PHF or PK15	0.95						0.95		0.95		0.95	0.95
Lane W (ft)	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	
Grade		0			0			0	•		0	
% Heavy Veh	2	. 2	2	2	2	2	2	2	2	2	2	2
Parking	N	N		N	N		N	N		N	N	
Bus Stops	Ì		0	1		0			0			0
Con. Peds	İ		0			0			0		-	0
Ped Button	(Y/N) N		(Y/N)) N		(X/N)) N		(X/N)) И	
Arr Type	3	3	3	3	3	3	3	3	3	3	3	
RTOR Vols			0			350	1		180	1		0
Lost Time	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
Prop. Share	20		20									
Prop. Prot.	1											

			Si	gnal	Operat	ion	S				
Phas	se Combination	1	2	3	4			5	6	7	8
EB	Left		*			NB	Left	*	*		
	Thru		*				Thru		*		
	Right		*				Right		*		
	Peds				•	ĺ	Peds				
WB	Left	*				SB	Left	*	*		
	Thru	*				ĺ	Thru		*		
	Right	*				İ	Right		*		
	Peds					ĺ	Peds				
NB	Right	*				EB	Right				
SB	Right					WB	Right				
Gre		A0.8	5.0A			Gre	en 2	5.0A	20.0A		
Yel	low/AR 3	3.0	3.0			Yel	low/AR	3.0	3.0		
		7 sec	s Pha	se co	mbinat	ion	order:	#1 #2	2 #5 #6		

			Intersect:	ion Perfo	ormance	Summary			
	Lane	Group:	Adj Sat	v/c	g/C			Approad	ch:
	Mvmts	Cap	Flow	Ratio	Ratio	Delay	LOS	Delay	LOS
EB	L	102	1770	0.206	0.057	25.4	D	62.5	F
	LTR	106	1839	0.956	0.057	80.0	F		
	R	91	1583	0.297	0.057	25.9	D		
WB	L	509	1770	1.046	0.287	64.2	F	48.7	E
	T	535	1863	0.215	0.287	15.2	C		
	R	455	1583	0.932	0.287	38.3	D		
NB	L	710	1770	0.048	0.552	5.9	В	10.5	B
112	T	428	1863	0.334	0.230	18.2	С		
	R	874	1583	0.516	0.552	8.3	В		

SB L 741 1770 1.024 0.552 42.4 E 38.0 D

TR 419 1821 0.411 0.230 18.8 C

Intersection Delay = 37.2 sec/veh Intersection LOS = D

Lost Time/Cycle, L = 9.0 sec Critical v/c(x) = 1.035

HCS: Signalized Intersection Version 2.4g 03-07-2001 2

Streets: (E-W) SR-2 (N-S) HUNTER/MT VIEW RD Analyst: TC File Name: AAM05IM.HC9

Area Type: Other 2-7-1 2005 AM

Comment: IMP UNDER DESIGN

Volume Adjustment Worksheet

Direc-		*			Lane		Lane		Adj		
tion/	Mvt		Adj	Lane	Grp	No.	Util	Growth	Grp	Prop	Prop
	Vol	PHF	Vol	Grp	Vol	Ln	Fact	Fact	Vol	LT	RT
EB											
Left	25	0.95	26	L	21	1	1.000	1.000	21	1.00	0.00
Thru	85	0.95	89	LTR	101	1	1.000	1.000	101	0.05	0.07
Right	32	0.95	34	R	27	1	1.000	1.000	27	0.00	1.00
WB											
Left	505	0.95	532	L	532	1	1.000	1.000	532	1.00	0.00
Thru	109	0.95	115	T	115	1	1.000	1.000	115	0.00	0.00
Right	752	0.95	424	R	424	1	1.000	1.000	424	0.00	1.00
NB											
Left	32	0.95	34	\mathbf{L}	34	1	1.000	1.000	34	1.00	0.00
Thru	136	0.95	143	T	143	1	1.000	1.000	143	0.00	0.00
Right	608	0.95	451	R	451	1	1.000	1.000	451	0.00	1.00
SB											
Left	721	0.95	759	L	759	1	1.000	1.000	759	1.00	0.00
Thru	139	0.95	146	TR	172	1	1.000	1.000	172	0.00	0.15
Right	25	0.95	26								
J											

Saturation Flow Adjustment Worksheet

Direction	Ideal n Sat Flow	No. Lns	f W	f HV	f G	f p	f BB	f A	f RT	f LT	Adj Sat Flow
EB											
L	1900	1	1.00	0.98	1.00	1.00	1.00	1.00	1.00	0.95	1770
LTR	1900	1	1.00	0.98	1.00	1.00	1.00	1.00	0.99	1.00	1839
R	1900	1	1.00	0.98	1.00	1.00	1.00	1.00	0.85	1.00	1583
WB											
L	1900	1	1.00	0.98	1.00	1.00	1.00	1.00	1.00	0.95	1770
T	1900	1	1.00	0.98	1.00	1.00	1.00	1.00	1.00	1.00	1863
R	1900	1	1.00	0.98	1.00	1.00	1.00	1.00	0.85	1.00	1583
NB										0.41	761
L	1900	1	1.00	0.98	1.00	1.00	1.00	1.00	1.00	0.95	1770
T	1900	1	1.00	0.98	1.00	1.00	1.00	1.00	1.00	1.00	1863
R	1900	1	1.00	0.98	1.00	1.00	1.00	1.00	0.85	1.00	1583
SB										0.47	879
L	1900	1	1.00	0.98	1.00	1.00	1.00	1.00	1.00	0.95	1770
TR	1900	1	1.00	0.98	1.00	1.00	1.00	1.00	0.98	1.00	1821

Streets: (E-W) SR-2 (N-S) HUNTER/MT VIEW RD
Analyst: TC File Name: AAM05IM.HC9

Area Type: Other 2-7-1 2005 AM

Comment: IMP UNDER DESIGN

Supplemental Permitted LT Worksheet

APPROACH	NB
Cycle Length, C	87
Actual Green Time for Lane Group, G	48
Effective Green Time for Lane Group, g	23
Opposing Effective Green Time, go	20
Number of Opposing Lanes, No	1
Number of Lanes in Lane Group, N	1
Adjusted Left-Turn Flow Rate, Vlt	34
Proportion of Left Turns in Lane Group, Plt	1.00
Left Turns per Cycle: LTC=Vlt*C/3600	0.82
Adjusted Opposing Flow Rate, Vo	172
Opposing Flow per Lane, Per Cycle: Volc=VoC/3600No	4.16
Opposing Platoon Ratio, Rpo	1
	0
Lost time per phase, tl	0.00
gf=Gexp(-0.882*LTC^0.717)-tl	0.77
Opposing Queue Ratio: qro=1-Rpo(go/C)	
gq = Volc * qro / (.5 - Volc * (1 - qro) / go)-tl	7.08
gu=g-gq (or g-gf)	15.92
fs=(875-0.625Vo)/1000	0.77
Pl=Plt[1+{(N-1)g/(fs*gu+4.5)}]	1.00
El1	1.69
fmin	0.17
fm, (min=fmin; max=1.00)	0.41
flt=[fm+0.91(N-1)]/N	0.41
APPROACH	SB
Cycle Length, C	87
Actual Green Time for Lane Group, G	48
Effective Green Time for Lane Group, g	23
	20
Opposing Effective Green Time, go	1
Number of Opposing Lanes, No	1
Number of Lanes in Lane Group, N	759
Adjusted Left-Turn Flow Rate, Vlt	1.00
Proportion of Left Turns in Lane Group, Plt	
Left Turns per Cycle: LTC=Vlt*C/3600	18.34
Adjusted Opposing Flow Rate, Vo	143
Opposing Flow per Lane, Per Cycle: Volc=VoC/3600No	3.46
Opposing Platoon Ratio, Rpo	1
Lost time per phase, tl	0
gf=Gexp(-0.882*LTC^0.717)-tl	0.00
Opposing Queue Ratio: qro=1-Rpo(go/C)	0.77
gq = Volc * gro / (.5 - Volc * (1 - gro) / go)-tl	5.78
gu=g-gq (or g-gf)	17.22
fs=(875-0.625Vo)/1000	0.79
Pl=Plt[1+{(N-1)g/(fs*gu+4.5)}]	1.00

HCS: Signalized Intersection Version 2.4g 03-07-2001 4

Streets: (E-W) SR-2

(N-S) HUNTER/MT VIEW RD File Name: AAM05IM.HC9

Analyst: TC

2-7-1 2005 AM

Area Type: Other

Comment: IMP UNDER DESIGN

Capacity Analysis Worksheet

		Flow Rate	Adj Sat Flow Rate (s)	Ratio	Green Ratio	Lane Group Capacity (c)	v/c	
EB								
	L	21	1770	0.012	0.057	102	0.206	
	LTR	101	1839	0.055	0.057	106	0.953	*
	R	27	1583	0.017	0.057	91	0.297	
WB								
	L	532	1770	0.301	0.287	509	1.045	*
	T	115	1863	0.062	0.287	535	0.215	
	R	424	1583	0.268	0.287	455	0.932	
NB	Lsec.	0	761	0.000	0.264	201	0.000	
	Lpri.	34	1770	0.019	0.287	509	0.067	
	Ltot.	34				710	0.048	
	T	143	1863	0.077	0.230	428	0.334	
	R	451	1583	0.285	0.552	874	0.516	
SB	Lsec.	250	879	0.284	0.264	232	1.078	*
	Lpri.	509	1770	0.288	0.287	509	1.000	*
	Ltot.	759				741	1.024	
	TR	172	1821	0.094	0.230	419	0.411	
Lo	st Time	/Cycle, L =	9.0 sec		(v/s) critica cal v/c(x)			

Level of Service Worksheet

	irection	v/c Ratio		ď	Del Adj Fact	Lane Group Cap		Delay d 2	Lane Grp Del	Lane Grp LOS	-	Ву
_		Racio	Ratio		racc				Der	1102	App	App
E	В											
	L	0.206	0.057	29.7	0.850	102	16	0.1	25.4	4 D	62.5	F
	LTR	0.956	0.057	31.1	0.850	106	16	53.5	80.0	0 F		
	R	0.297	0.057	29.9	0.850	91	16	0.6	25.9	9 D		
W	IB											
	L	1.046	0.287	23.6	0.850	509	16	44.2	64.2	2 F	48.7	E
	T	0.215	0.287	17.9	0.850	535	16	0.0	15.2	2 C		
	R	0.932	2 0.287	22.9	0.850	455	16	18.8	38.3	3 D		
N	ΙΒ											
	L	0.048	3 0.552	7.0	0.850	710	16	0.0	5.5	9 B	10.5	В
	T	0.334	1 0.230	21.2	0.850	428	16	0.2	18.2	2 C		
	R	0.516	0.552	9.3	0.850	874	16	0.4	8.3	3 B		
٥	SB											

L 1.024 0.552 12.5 0.850 741 16 31.8 42.4 E 38.0 D

TR 0.411 0.230 21.7 0.850 419 16 0.4 18.8 C

Intersection Delay = 37.2 sec/veh Intersection LOS = D

Center For Microcomputers In Transportation

Streets: (E-W) SR-2

(N-S) HUNTER/MT VIEW RD File Name: APM05IM.HC9

Analyst: TC Area Type: Other

2-7-1 2005 PM

Comment: IMP UNDER DESIGN

	Ea	Eastbound			1			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R	
No. Lanes	1 :	> 1 •	< 1 '	1	1	1	1	1	1	1	1 .	< 0	
Volumes	25	109	32	608	85	721	32	139	505	752	136	25	
Lane W (ft)	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	•	
RTOR Vols			0			350	i		180			0	
Lost Time	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	
				Signa:	l Ope:	ratio	ns						
Phase Combi	.natio	n 1	2	3		4			5	6	7	8	
EB Left			*			NB	Lef	t	*	*		-	
Thru			*				Thr	u		*			
Right			*				Rig.	ht		*			
Peds							Ped	s					
WB Left		*				SE	Lef	t	*	*			
Thru		*					Thr	u		*			
Right		*				1	Rig	ht		*			
Peds							Ped	s					
NB Right		*	*			E	Rig	ht					
SB Right						WE	Rig	ht					
Green	2	7.0A	5.0A	-		Gı	reen	32.	0A 24	.0A			
Yellow/AR							ellow/						
Cycle Leng	th: 10	0 sec	s Ph	ase c	ombin	ation	n orde	r: #1	. #2 #	5 #6			

	Intersection Performance Summary											
	Lane Mvmts	Group: Cap	Intersect Adj Sat Flow	ion Perfo v/c Ratio	ermance g/C Ratio	Summary Delay	LOS	Approac Delay	ch: Los			
EB	L	88	1770	0.203	0.050	29.6	D	*	*			
	LTR	92	1836	1.449	0.050	*	*					
	R	79	1583	0.303	0.050	30.3	D					
WB	L	478	1770	1.339	0.270	*	*	* .	*			
	T	503	1863	0.177	0.270	18.1	С					
	R	428	1583	0.915	0.270	40.0	D					
NB	L	778	1770	0.044	0.590	5.7	В	10.7	В			
	T	447	1863	0.327	0.240	20.4	C					
	R	934	1583	0.367	0.590	7.0	В					
SB	L	803	1770	0.986	0.590	31.9	D	30.0	D			
	TR	437	1820	0.387	0.240	20.9	C .					
		In	tersection	Delay = '	* (sec/\	veh) Int	tersec	tion LOS	= *			
			_	_								

(g/C)*(V/c) is greater than one. Calculation of D1 is infeasible.

Center For Microcomputers In Transportation

Streets: (E-W) SR-2

(N-S) HUNTER/MT VIEW RD File Name: APM05IM.HC9

Analyst: TC

TITO INCINCT.

Area Type: Other

2-7-1 2005 PM

Comment: IMP UNDER DESIGN

Comment: IME	P UNDE	SR DES	====== ======	.====	=====	====:	=====	=====	====:		=====	====
	Ea	astboi	ınd	Wes	stbour	nd	Noi	thbou	ınd	Sou	ıthbou	ınd
	L	T 	R	L.	T	R	L 	T 	R 	L	T .	R
No. Lanes	1 >	> 1 .	< 1	1	1	1	1	1	1	1	1 <	: 0
Volumes	25	109	32	608	85	721	32	139	505	752	136	25
PHF or PK15	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Lane W (ft)	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	
Grade		0			0			0		İ	0	
% Heavy Veh	2	2	2	2	2	2	2	2	2	2	2	2
Parking	N	N		N	N		N	N		N	N	
Bus Stops	1		0			0			0			0
Con. Peds			0			0			0			0
Ped Button	(Y/N) N		(Y/N) N		(Y/N) N		(Y/N) N	
Arr Type	3	3	3	3	3	3	3	3	3	3	3	
RTOR Vols			0			350			180			0
Lost Time	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
Prop. Share	30		3 0									
Prop. Prot.							ĺ					
				 Signa	 l Ope	ratio	ns					
Phase Combi	natio	n 1	2	3	_	4			5	6	7	8
EB Left			*			NE	lef	t	*	*		
Thru			*			i	Thr	u		*		
Right			*			i	Riq	ht		*		
Peds						İ	Ped	.s				
WB Left		*				SE	B Lef	t	*	*		
Thru		*				j .	Thr	u		*		
Right		*				ĺ	Rig	ht		*		
Peds						i	Ped	ls				
NB Right		*	*			E	B Rig	ht				
SB Right						WI	3 Ric	ht				
Green	2	27.0A	5.02	1		∫ Gı	reen	32.	0A 24	4.0A		
Yellow/AR		3.0	3.0			İΥ€	ellow/	'AR 3.	. 0 3	3.0		
Cycle Lengt	h: 10	0 sec	cs Ph	ase c	combir	nation	n orde	er: #1	L #2 ‡	‡5 #6		
												

			Intersecti			Summary			
	Lane	Group:	Adj Sat	v/c	g/C			Approad	ch:
	Mvmts	Cap	Flow	Ratio	Ratio	Delay	LOS	Delay	LOS
EB	L	88	1770	0.203	0.050	29.6	D	*	*
	LTR	92	1836	1.449	0.050	*	*		
	R	79	1583	0.303	0.050	30.3	D		
WB	L	478	1770	1.339	0.270	*	*	*	*
	T	503	1863	0.177	0.270	18.1	C		
	R	428	1583	0.915	0.270	40.0	D		
NB	L	778	1770	0.044	0.590	5.7	В	10.7	В
	Т	447	1863	0.327	0.240	20.4	С		
	R	934	1583	0.367	0.590	7.0	В		

SB L 803 1770 0.986 0.590 31.9 D 30.0 D TR 437 1820 0.387 0.240 20.9 C Intersection Delay = * (sec/veh) Intersection LOS = * (g/C)*(V/c) is greater than one. Calculation of D1 is infeasible.

HCS: Signalized Intersection Version 2.4g 03-07-2001 1

Center For Microcomputers In Transportation

University of Florida

512 Weil Hall

Gainesville, FL 32611-2083 (904) 392-0378

Streets: (E-W) SR-2 Analyst: TC

(N-S) HUNTER/MT VIEW RD File Name: APM05IM.HC9

Area Type: Other

2-7-1 2005 PM

Comment: IMP UNDER DESIGN

Traffic and Roadway Conditions

	Ea	stbou	ınd	Wes	tbour	ıd	Nor	thbou	ind	Sou	thbou	ınd
ļ	L	T	R	L	T	R	L	T	R	L	T	R
	-,											
No. Lanes	1 >	- 1 <	: 1	1	1	1	1	1	1	1	1 <	: 0
Volumes	25	109	32	608	85	721	32	139	505	752	136	25
PHF or PK15	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Lane W (ft)	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	
Grade		0			0			0			0	
% Heavy Veh	2	2	2	2	2	2	2	2	2	2	2	2
Parking	N	N		N	N		N	N		N	N	
Bus Stops	-		0			0	1		0			0
Con. Peds	[0	1		0			0			0
Ped Button	(Y/N)	N		(Y/N)	N N		(Y/N)) N		(Y/N)	N	
Arr Type	3	3	3	3	3	3	3	3	3	3	3	
RTOR Vols			0			350			180			0
Lost Time	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00

Signal Operations

Phas	e Combination	1	2	3	4]		5	6	7	8
EB :	Left		*			NB	Left	*	*		
1	Thru		*			1	Thru		*		
	Right		*			Ì	Right		*		
	Peds		1			ĺ	Peds				
MD	Left	*				SB	Left	*	*		
		*				٦٥٥			*		
	Thru						Thru				
	Right	*				1	Right		*		
	Peds						Peds				
NB	Right	*	*			EB	Right				
	Right					WB	Right				
םכ	Kigiic					I WID	Kight				
Gree	en 27	.0A	5.0A			Gre	en 32	.0A 24	.0A		
Yell	.ow/AR 3	. 0	3.0			Yel	low/AR 3	.0 3	. 0		
	•					•	•				

Cycle Length: 100 secs Phase combination order: #1 #2 #5 #6

HCS: Signalized Intersection Version 2.4g 03-07-2001 2

Streets: (E-W) SR-2 (N-S) HUNTER/MT VIEW RD Analyst: TC File Name: APM05IM.HC9

Area Type: Other 2-7-1 2005 PM

Comment: IMP UNDER DESIGN

Volume Adjustment Worksheet

Direc-					Lane		Lane		Adj		
tion/	Mvt		Adj	Lane	Grp	No.	Util	Growth	Grp	Prop	Prop
Mvt	Vol	PHF	Vol	Grp	Vol	Ln	Fact	Fact	Vol	LT	RT
EB											
Left	25	0.95	26	L	18	1	1.000	1.000	18	1.00	0.00
Thru	109	0.95	115	LTR	133	1	1.000	1.000	133	0.06	0.08
Right	32	0.95	34	R	24	1	1.000	1.000	24	0.00	1.00
WB											
Left	608	0.95	640	L	640	1	1.000	1.000	640	1.00	0.00
Thru	85	0.95	89	T	89	1	1.000	1.000	89	0.00	0.00
Right	721	0.95	391	R	391	1	1.000	1.000	391	0.00	1.00
NB											
Left	32	0.95	34	L	34	1	1.000	1.000	34	1.00	0.00
Thru	139	0.95	146	T	146	1	1.000	1.000	146	0.00	0.00
Right	505	0.95	343	R	343	1	1.000	1.000	343	0.00	1.00
SB											
Left	752	0.95	792	L	792	1	1.000	1.000	792	1.00	0.00
Thru	136	0.95	143	TR	169	1	1.000	1.000	169	0.00	0.15
Right	25	0.95	26								

Saturation Flow Adjustment Worksheet

Direction /LnGrp	Ideal Sat Flow	No. Lns	f W	f HV	f G	f p	f BB	f A	f RT	f LT	Adj Sat Flow
EB											
L	1900	1	1.00	0.98	1.00	1.00	1.00	1.00	1.00	0.95	1770
LTR	1900	1	1.00	0.98	1.00	1.00	1.00	1.00	0.99	1.00	1836
R	1900	1	1.00	0.98	1.00	1.00	1.00	1.00	0.85	1.00	1583
WB											
L	1900	1	1.00	0.98	1.00	1.00	1.00	1.00	1.00	0.95	1770
T	1900	1	1.00	0.98	1.00	1.00	1.00	1.00	1.00	1.00	1863
R	1900	1	1.00	0.98	1.00	1.00	1.00	1.00	0.85	1.00	1583
NB										0.42	784
L	1900	1	1.00	0.98	1.00	1.00	1.00	1.00	1.00	0.95	1770
T	1900	1	1.00	0.98	1.00	1.00	1.00	1.00	1.00	1.00	1863
R	1900	1	1.00	0.98	1.00	1.00	1.00	1.00	0.85	1.00	1583
SB										0,47	876
L	1900	1	1.00	0.98	1.00	1.00	1.00	1.00	1.00	0.95	1770
TR	1900	1	1.00	0.98	1.00	1.00	1.00	1.00	0.98	1.00	1820

HCS: Signalized Intersection Version 2.4g 03-07-2001 4

Streets: (E-W) SR-2 (N-S) HUNTER/MT VIEW RD Analyst: TC File Name: APM05IM.HC9

Area Type: Other 2-7-1 2005 PM

Comment: IMP UNDER DESIGN

Capacity Analysis Worksheet

	rection Grp	Flow Rate	Adj Sat Flow Rate (s)	Ratio	Green Ratio	Lane Group Capacity (c)		
EB								
	L	18	1770	0.010	0.050	. 88	0.205	
	LTR	133	1836	0.072	0.050	92	1.446	*
	R	24	1583	0.015	0.050	79	0.304	
WB								
	L	640	1770	0.362	0.270	478	1.339	*
	T	89	1863	0.048	0.270	503	0.177	
	R	391	1583	0.247	0.270	428	0.914	
NB	Lsec.	0	784	0.000	0.270	212	0.000	
	Lpri.	34	1770	0.019	0.320	566	0.060	
	Ltot.	34				778	0.044	
	T	146	1863	0.078	0.240	447	0.327	
	R	343	1583	0.217	0.590	934	0.367	
SB	Lsec.	226	876	0.258	0.270	237	0.954	*
	Lpri.	566	1770	0.320	0.320	566	1.000	
	Ltot.	792				803	0.986	
	TR	169	1820	0.093	0.240	437	0.387	
					(v/s) critica			
Lo	st Time	/Cycle, L =	9.0 sec		cal v/c(x)	= 1.112		

Level of Service Worksheet

				Delay	Del	Lane	Calib	Delay	Lane	Lane	Delay	LOS
Dir	rection	v/c	g/C	d	Adj	Group	đ	d	Grp	Grp	Ву	Ву
/Lr	ıGrp	Ratio	Ratio	1	Fact	Cap	2	2	Del	LOS	App	App
												
EB												
	L	0.203	0.050	34.6	0.850	88	16	0.2	29.	6 D	*	*
	LTR	1.449	0.050	*	0.850	92	16	*	*	*		
	R	0.303	0.050	34.8	0.850	79	16	0.7	30.3	3 D		
WB												
	Γ .	1.339	9 0.270	*	0.850	478	16	*	*	*	*	*
	T	0.17	7 0.270	21.3	0.850	503	16	0.0	18.	1 C		
	R	0.915	5 0.270	26.9	0.850	428	16	17.1	40.	0 D		
NB												
	L	0.044	4 0.590	6.8	0.850	778	16	0.0	5.	7 B	10.7	В
	T	0.32	7 0.240	23.8	0.850	447	16	0.2	20.4	4 C		
	R	0.36	7 0.590	8.2	0.850	934	. 16	0.1	7.	0 В		
SB												

L 0.986 0.590 12.3 0.850 803 16 21.4 31.9 D 30.0 D
TR 0.387 0.240 24.2 0.850 437 16 0.3 20.9 C
Intersection Delay = * (sec/veh) Intersection LOS = *
* Delay and LOS not meaningful when any v/c is greater than 1.2 or 1/PHF

Center For Microcomputers In Transportation

Streets: (E-W) SR-2 (N-S) HUNTER/MT VIEW RD Analyst: TC File Name: AAM25IM.HC9

Area Type: Other 2-7-1 2025 AM

Comment: IMP UNDER DESIGN

_=========	Eastbo	===== und	Wes	===== stbour	===== 1d	===== Noi	thbou	ind	===== Soi	===== 1thbou	ınd
	:	R	L		R	L			L	T ·	
No. Lanes	1 > 1					•			1		-
Volumes	13 141	35	899	141	1337	35	60	993	1176	43	13
Lane W (ft)	12.0 12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	
RTOR Vols		0			350			180			0
Lost Time	3.00 3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
			_	l Ope		ns			_		
Phase Combi	nation 1		3	4	4			5	6	7	8
EB Left		*			NB		_	*	*		
Thru		*			ļ	Thr			*		
Right		*			ļ	Rig!			*		
Peds						Ped					
WB Left	*				SB	Lef	t	*	*		
Thru	*					Thr	u		*		
Right	*				Ì	Rig	ht		*		
Peds						Ped	s				
NB Right	*	*			EB	Rig	ht				
SB Right					WB	Rig	ht				
Green	27.0A	5.0A			Gr	een	32.	0A 24	.0A		
Yellow/AR	3.0	3.0			Ye	11,ow/	AR 3.	0 3	.0		
Cycle Lengt	h: 100 sec	s Pha	ase c	ombin	ation	. orde	r: #1	#2 #	5 #6		

			Intersect	ion Perfo	rmance	Summary			
	Lane	Group:	Adj Sat	v/c	g/C			Approac	ch:
	Mvmts	Cap	Flow	Ratio	Ratio	Delay	LOS	Delay	LOS
EB	L	88	1770	0.113	0.050	29.3	D	*	*
	LTR	92	1842	1.770	0.050	*	*		
	R	79	1583	0.328	0.050	30.5	D		
WB	L	478	1770	1.980	0.270	*	*	*	*
	T	503	1863	0.294	0.270	18.8	С		
	R	428	1583	2.430	0.270	*	*		
NB	L	962	1770	0.038	0.590	5.5	В	20.8	С
	T	447	1863	0.141	0.240	19.3	С		
	R	934	1583	0.916	0.590	21.5	С		
SB	L	957	1770	1.294	0.590	*	*	*	*
	TR	431	1796	0.137	0.240	19.3	С		
		Tnt	ersection	Delaw -	* (gec/s	reh) Int	ergec	tion LOS	- *

Intersection Delay = * (sec/veh) Intersection LOS = * (g/C)*(V/c) is greater than one. Calculation of D1 is infeasible.

Center For Microcomputers In Transportation

Streets: (E-W) SR-2 (N-S) HUNTER/MT VIEW RD
Analyst: TC File Name: AAM25IM.HC9

Area Type: Other 2-7-1 2025 AM

Comment: IMP UNDER DESIGN

SB Right
Green 27.0A 5.0A
Yellow/AR 3.0 3.0

comment: IME	=====	SR DES	====== ?TGN	=====	=====	====:	=====	:			=====	
	Ea	astbo	und	Wes	tbour	nd	No	rthboi	ınd	Sou	ıthboı	ınd
	L	${f T}$	R	L	T	R	L	T	R	L	T	R
No. Larres	 1 :	> 1	< 1	1	1	1	1	1	1	1	1 <	
Volumes	13	141	35	899		1337	35	60	993	1176	43	13
PHF or PK15	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Lane W (ft)			12.0									
Grade		0			0			0			0	
% Heavy Veh	2	2	2	2	2	2	2	2	2	2	2	2
Parking	N	N		N	N		N	N		N	N	
Bus Stops			0			0	Ì		0			0
Con. Peds			0			0	1		0			0
Ped Button	(Y/N)) N		(Y/N) N		(Y/N) N		(Y/N)) N	
Arr Type	3	3	3	3	3	3	3	3	3	3	3	
RTOR Vols			0			350	1		180			0
		3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
Prop. Share	:		30				1					
Prop. Prot.												
				 Signa	1 Ope	ratio	ns					
Phase Combin	natio	n 1	2	3		4			5	6	7	8
EB Left			*			NB	Lef	t	*	*		
Thru			*			į	Thr	u		*		
Right			*			İ	Rig	ht		*		
Peds						ĺ	Ped	s				
WB Left		*				SB	Lef	t	*	*		
Thru		*				İ	Thr	u		*		
Right		*				Ì	Rig	ht		*		
Peds							Ped	s				
NB Right		*	*			EB	Rig	ht				
SB Right						WB	Rig	ht				

Cycle Length: 100 secs Phase combination order: #1 #2 #5 #6

|Green 32.0A 24.0A |Yellow/AR 3.0 3.0

			Intersect	ion Perf	ormance	Summary			
	Lane	Group:	Adj Sat	v/c	g/C			Approac	ch:
	Mvmts	Cap	Flow	Ratio	Ratio	Delay	LOS	Delay	LOS
EB	L	88	1770	0.113	0.050	29.3	D	*	*
	LTR	92	1842	1.770	0.050	*	*		
	R	79	1583	0.328	0.050	30.5	D		
WB	L	478	1770	1.980	0.270	*	*	*	*
	T	503	1863	0.294	0.270	18.8	C		
	R	428	1583	2.430	0.270	*	*		
NB	L	962	1770	0.038	0.590	5.5	В	20.8	С
	${f T}$	447	1863	0.141	0.240	19.3	C		
	R	934	1583	0.916	0.590	21.5	C		

SB L 957 1770 1.294 0.590 * * * * * * TR 431 1796 0.137 0.240 19.3 C Intersection Delay = * (sec/veh) Intersection LOS = * (g/C)*(V/c) is greater than one. Calculation of D1 is infeasible.

Center For Microcomputers In Transportation

Streets: (E-W) SR-2

(N-S) HUNTER/MT VIEW RD File Name: APM25IM.HC9

Analyst: TC Area Type: Other

2-7-1 2025 PM

Comment: IMP UNDER DESIGN

====		 -	=====	===== und	wes	====: :thou	-====:	I NO	:====: :+hbo:	====: ind	===== SOI	====: uthbo:	and
		L	T	R R				L		R	!	T	R
		יל	1	ĸ	L	T	R	1 1	Т	R	L	1	R
No. L		ï		< 1	,			1		1	1	1	-
Volum				35									13
Lane	W (ft)	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	
RTOR	Vols	ĺ		0			350			180			0
Lost	Time	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
				1	Signa	l Ope	ratio:	ns					
Phase	: Combi	natic	on 1	2	3		4			5	6	7	8
EB L	⊿eft			*			NB	Lef	Ę	*	*		
T	hru			*				Thr	ı		*		
R	Right			*			j	Rig.	ht		*		
	Peds						i	Ped	S				
WB I	_eft		*				SB	Lef	t	*	*		
	hru		*				j	Thr	u		*		
	Right		*				i	Rig	ht		*		
	Peds						İ	Ped					
	Right		*	*			EB	Rig					
	Right						WB						
Greer	_		77 07	5.0A				een		07 24	0.70		
					L			ellow/					
	ow/AR												
CACT	e Lengt	u: T(JU SEC	s Pn	ase c	CILCINO	ation	orde	T: #T	#∠ #	10 H0		
САСТЕ	= Denge				ase c		.ac1011			· π∠ π			

Take and the Destinance of Commences

	Lane	Group:	Intersect: Adj Sat	ion Perfo v/c	rmance g/C	Summary		Approac	ch:
	Mvmts	Cap	Flow	Ratio	Ratio	Delay	LOS	Delay	LOS
EB	L	88	1770	0.113	0.050	29.3	D	*	*
	LTR	92	1847	2.371	0.050	*	*		
	R	79	1583	0.328	0.050	30.5	D	·	
WB	L	478	1770	2.187	0.270	*	*	*	*
	T	503	1863	0.294	0.270	18.8	C		
	R	428	1583	2.035	0.270	*	*		
NB	L	895	1770	0.041	0.590	5.6	В	14.1	В
	T	447	1863	0.101	0.240	19.1	C		
	R	934	1583	0.810	0.590	14.2	В		
SB	L	979	1770	1.437	0.590	*	*	*	*
	TR	435	1812	0.177	0.240	19.5	C		
		Tnt	ercection	Delaw - ·	* (cec/	reh) Int	arcec	tion LOS	- *

Intersection Delay = * (sec/veh) Intersection LOS = * (g/C)*(V/c) is greater than one. Calculation of D1 is infeasible.

Center For Microcomputers In Transportation

Streets: (E-W) SR-2 (N-S) HUNTER/MT VIEW RD
Analyst: TC File Name: APM25IM.HC9
Area Type: Other 2-7-1 2025 PM

Comment: IMP UNDER DESIGN

=========	=====	=====		=====	=====	=====	=====	=====	=====	=====	=====	====
	Ea	astbou	ınd	Wes	tbour	ıd	Nor	thbou	ınd	Sou	ıthbou	ınd
	L	${f T}$	R	L	${ t T}$	R	L	${f T}$	R	L	T	R
No. Lanes	1 :	> 1 <	< 1	1	1	1	1	1	1	1	1 <	: 0
Volumes	13	194	35	993	141	1176	35	43	899	1337	60	13
PHF or PK15	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Lane W (ft)	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	
Grade		0			0			0			0	
% Heavy Veh	2	2	2	2	2	2	2	2	2	2	2	2
Parking	N	N		N	N		N	N		N	N	
Bus Stops	1		0			0			0			0
Con. Peds			0			0			0			0
Ped Button	(Y/N)) N		(Y/N)	N		(Y/N) N		(Y/N) N	
Arr Type	3	3	3	3	3	3	3	3	3	3	3	
RTOR Vols	1		0			350			180	}		0
Lost Time	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
Prop. Share	30		3 0									
Prop. Prot.										1		
										-		
				Signa:	l Ope	ratio	ns					

			Sig	mal (Operat	cion	3				
Phase	e Combinatio	on 1	2	3	4			5	6	7	8
EB :	Left		*			NB	Left	*	*		
	Thru		*				Thru		*		
	Right		*				Right		*		
	Peds					İ	Peds				
WB	Left	*				SB	Left	*	*		
	Thru	*					Thru		*		
	Right	*				İ	Right		*		
	Peds						Peds				
NB	Right	*	*			EB	Right				
SB	Right					WB	Right				
Gree	:n	27.0A	5.0A			Gre	en 3	2.0A 2	24.0A		
Yell	.ow/AR	3.0	3.0			Yel	low/AR	3.0	3.0		
Cycl	e Length: 1	00 sec	s Phase	e com	binat	ion	order:	#1 #2	#5 #6		

			Intersecti	on Perfo	ormance	Summary			
	Lane	Group:	Adj Sat	v/c	g/C			Approac	ch:
	Mvmts	Cap	Flow	Ratio	Ratio	Delay	LOS	Delay	LOS
EB	L	88	1770	0.113	0.050	29.3	D	*	*
	LTR	92	1847	2.371	0.050	*	*		
	R	79	1583	0.328	0.050	30.5	D		
WB	L	478	1770	2.187	0.270	*	*	*	*
	Т	503	1863	0.294	0.270	18.8	С		
	R	428	1583	2.035	0.270	*	*		
NB	L	895	1770	0.041	0.590	5.6	В	14.1	В
	T	447	1863	0.101	0.240	19.1	С		
	R	934	1583	0.810	0.590	14.2	B		

SB L 979 1770 1.437 0.590 * * * * * * * TR 435 1812 0.177 0.240 19.5 C Intersection Delay = * (sec/veh) Intersection LOS = * (g/C)*(V/c) is greater than one. Calculation of D1 is infeasible.

Center For Microcomputers In Transportation

Streets: (E Analyst: Tc Area Type: Comment: Im	Other p Under	Design (2		Fil 1-1	.7-1 a	e: BAM	O5IM.HC	.9	
=========							====== a c	outhbo	:=====
			Westbour	,		thboun T	a j s R L	outhbe T	R R
	1								
No. Lanes	0 2	2	1 2	0	0	0	0 1	0	1
Volumes			740 1284				10)4	82
Lane W (ft)	12	.0 12.0	12.0 12.0				12.	. 0	12.0
RTOR Vols		150	,	0					0
Lost Time	3.	00 3.00	3.00 3.00	}			3.0	0.0	3.00
		. ـ ـ ـ ـ ـ ـ ـ ـ ـ ـ ـ ـ ـ ـ ـ ـ ـ ـ ـ		 +-					
Phase Combi	nation 1		ignal Oper 3	1	15	5	6	7	8
EB Left				NB	Left	_	-	•	_
Thru	4	+			Thru	1			
Right	5	*		į	Righ	ıt			
Peds				j	Peds	3			
WB Left		*		SB	Left	*	*		
Thru		*			Thru				
Right					Righ				
Peds				ļ	Peds	_			
NB Right				EB	_				
SB Right				WB	_				
Green		0A 33.0A		ļ	een		5.0A		
Yellow/AR	3.	0 3.0				AR 3.0			
Cycle Lengt			se combin					6	
			tion Perf						
Lane	Group:		v/c			-		Appro	ach:
Mvmts		Flow	Ratio	Rat	io 1			Delay	LOS
 EB T	 993	3725		0.2		17.1	 C	30.7	 D
EB T	844	3167				41.5		50.7	ב
WB L	779	1770	1.000			38.5	D	24.0	С
wb 11 T	1639	3725	0.866	0.4		16.0	Ċ		_
					-		-		

	Intersection Performance Summary												
	Lane	Group:	Adj Sat	v/c	g/C			Approac	ch:				
	Mvmts	Cap	Flow	Ratio	Ratio	Delay	LOS	Delay	LOS				
EB	T	993	3725	0.672	0.267	17.1	C	30.7	D				
	R	844	3167	0.999	0.267	41.5	E						
WB	L	779	1770	1.000	0.440	38.5	D	24.0	С				
	T	1639	3725	0.866	0.440	16.0	C						
SB	L	282	1626	0.387	0.173	18.2	C	30.8	D				
	R	106	1583		0.067	46.7	E						
		Int	ersection 1	Delay =	26.9 se	c/veh Int	ersec	tion LOS	= D				
Lost	Time/	Cycle, L	= 9.0 s	ec Cri	tical v/	c(x) =	= 0.87	9					

Center For Microcomputers In Transportation

Streets: (E-W) Sr-2

(N-S) SB Exit

Analyst: Tc

File Name: BAM05IM.HC9

Area Type: Other 1-17-1 am

	======= 		astboi			tboun			thbou			thbo	
		L	T	R	L	T	R	L	T	R	L	T	R
No. I	Lanes	0	2	2	1	2	0	0	0	0	1	0	1
Volu	mes		604	860	740	1284	İ				104		82
PHF (or PK15		0.95	0.95	0.95	0.95	İ				0.95		0.95
Lane	W (ft)		12.0	12.0	12.0	12.0	ĺ				12.0		12.0
Grad	le		0			0	1				1	0	
% He	avy Veh		2	2	2	2					11		2
Park	ing	N	N		И	N	İ				N	N	
	Stops			0			0				1		0
	Peds			0			0			- 0			0
Ped	Button	(Y/N) N		(Y/N) N	1				(Y/N)	N	
Arr	Type		. 3	3	3	3					3		3
RTOR	R Vols	ĺ		150			0						0
Lost	Time	1	3.00	3.00	3.00	3.00	1				3.00		3.00
Prop	. Share			**									
Prop	p. Prot.												
					 Signa	l Oper	cation	· 15					
Phas	se Combi	natio	n 1	2	3		ı		5	5	6	7	8
EB	Left						NB	Left	t				
	Thru		*					Thr	u				
	Right		*					Rig	ht				
	Peds							Ped	s				
WB	Left			*			SB	Lef	t ;	k	*		
	Thru			*				Thr	u				
	Right							Rig.	ht '	*			
	Peds							Ped	s				
NB	Right						EB	Rig	ht				
SB	Right						WB	Rig	ht				
Gre	en		A0.02	33.02	Y		Gr	een	5.	. A0	5.0A		
Yel	low/AR		3.0	3.0			Ye	llow/	AR 3.	0 :	3.0		
Сус	le Lengt	h: '	75 sec			combin	ation	orde	r: #1	#2 :	#5 #6		
			T1	terse		n Perf	orman	ce Su	mmarv				
	Lane	Grou		\dj Sa		v/c	g/				A	ppro	ach:
	Mvmts		ap.	Flov		Ratio	Rat		Delay	L		elay	
			_										
EB	T	9	93	3725	5 (0.672	0.2	67	17.1		C 3	0.7	D

			Intersect:	ion Perf	ormance S	Summary			
	Lane	Group:	Adj Sat	v/c	g/C			Approad	ch:
	Mvmts	Cap	Flow	Ratio	Ratio	Delay	LOS	Delay	Los
EB	T	993	3725	0.672	0.267	17.1	C	30.7	D
	R	844	3167	0.999	0.267	41.5	E		
WB	L	779	1770	1.000	0.440	38.5	D	24.0	С
	T	1639	3725	0.866	0.440	16.0	C		
SB	L	282	1626	0.387	0.173	18.2	C	30.8	D
	R	106	1583	0.815	0.067	46.7	E		
		Int	ersection D	Delay =	26.9 sed	c/veh Int	cersec	tion LOS	= D
T	m2 /	О Т	0 0 -	a ani	+ 1 1 / /	a /ar\	0 07	0	

Lost Time/Cycle, L = 9.0 sec Critical v/c(x) = 0.879_____ HCS: Signalized Intersection Version 2.4g 03-07-2001 1

Center For Microcomputers In Transportation

University of Florida

512 Weil Hall

Gainesville, FL 32611-2083 (904) 392-0378

Streets: (E-W) Sr-2 (N-S) SB Exit

Analyst: Tc File Name: BAM05IM.HC9

Area Type: Other 1-17-1 am

Comment: Imp Under Design (2005)

Traffic and Roadway Conditions

	Ea	stbou	ınd	Wes	tboun	.d.	No	rthbo	und	Sout	hbo	und
	L	T	R	L	T	R	L	${f T}$	R	L	T	Ŕ
No. Lanes	0	2	2	1	2	0	0	0	0	1	0	1
Volumes		604	860	740	1284	!				104		82
PHF or PK15		0.95	0.95	0.95	0.95					0.95		0.95
Lane W (ft)		12.0	12.0	12.0	12.0					12.0		12.0
Grade		0			0		ĺ				C)
% Heavy Veh		2	2	2	2		ĺ			11		2
Parking	N	N		N	N		İ			N	Ŋ	1
Bus Stops			0			0						0
Con. Peds			0	İ		0			0	1		0
Ped Button	(Y/N) N		(Y/N)) N					(Y/N)	N	
Arr Type	1	3	3	3	3					3		3
RTOR Vols	ĺ		150			0]		0
Lost Time		3.00	3.00	3.00	3.00					3.00		3.00

Signal Operations

Pha EB	se Combination Left	1 1	2	3	4	NB	Left	5	6	7	8
	Thru	*					Thru				
	Right Peds	*				 	Right Peds				
WB	Left		*			SB	Left	*	*		
	Thru		*				Thru				
	Right						Right	*			
	Peds						Peds				
NB	Right					EB	Right				
SB	Right					WB	Right				
Gre	en 2	0.0A 33	.0A			Gre	en	5.0A	5.0A		
Yel	low/AR	3.0 3	.0			Yel	low/AR	3.0	3.0		

Cycle Length: 75 secs Phase combination order: #1 #2 #5 #6

03-07-2001 2 HCS: Signalized Intersection Version 2.4g ______

Streets: (E-W) Sr-2

(N-S) SB Exit

Analyst: Tc

File Name: BAM05IM.HC9

1-17-1 am

Area Type: Other

Comment: Imp Under Design (2005)

Volume Adjustment Worksheet

Direction/ Mvt	Mvt Vol	PHF	Adj Vol	Lane Grp	Lane Grp Vol	No. Ln	Lane Util Fact	Growth Fact	Adj Grp Vol	Prop LT	Prop RT
EB											
Thru	604	0.95	636	\mathbf{T}	636	2	1.050	1.000	668	0.00	0.00
Right WB	860	0.95	747	R	747	2	1.130	1.000	844	0.00	1.00
Left	740	0.95	779	L	779	1	1.000	1.000	779	1.00	0.00
Thru	1284	0.95	1352	T	1352	2	1.050	1.000	1420	0.00	0.00
SB											
Left	104	0.95	109	L	109	1	1.000	1.000	109	1.00	0.00
Right	82	0.95	86	R	86	1	1.000	1.000	86	0.00	1.00
_											

Saturation Flow Adjustment Worksheet

Direction /LnGrp	Ideal Sat Flow	No. Lns	f W	f HV	f G	f p	f BB	f A	f RT	f LT	Adj Sat Flow
EB											
T	1900	2	1.00	0.98	1.00	1.00	1.00	1.00	1.00	1.00	3725
R	1900	2	1.00	0.98	1.00	1.00	1.00	1.00	0.85	1.00	3167
WB											
L	1900	1	1.00	0.98	1.00	1.00	1.00	1.00	1.00	0.95	1770
T	1900	2	1.00	0.98	1.00	1.00	1.00	1.00	1.00	1.00	3725
SB											
L	1900	1	1.00	0.90	1.00	1.00	1.00	1.00	1.00	0.95	1626
R	1900	1	1.00	0.98	1.00	1.00	1.00	1.00	0.85	1.00	1583

HCS: Signalized Intersection Version 2.4g 03-07-2001 3 ______

Streets: (E-W) Sr-2

(N-S) SB Exit

Analyst: Tc

File Name: BAM05IM.HC9

Area Type: Other

1-17-1 am

Comment: Imp Under Design (2005)

Capacity Analysis Worksheet

	Adj	Adj Sat	Flow	•	Lane Group		
Direction	Flow Rate	Flow Rate	Ratio	Green Ratio	Capacity	v/c	
/LnGrp	(v)	(s)	(v/s)	(q/C)	(c)	Ratio	
EB							
T	668	3725	0.179	0.267	993	0.673	
R	844	3167	0.267	0.267	844	1.000	*
WB						,	
L	779	1770	0.440	0.440	779	1.000	*
T	1420	3725	0.381	0.440	1639	0.866	
NB							
SB							
L	109	1626	0.067	0.173	282	0.387	*
R	86	1583	0.054	0.067	106	0.811	
			Sum (v/s) critical	= 0.774		
Lost Time	e/Cycle, L =	9.0 sec	Criti	cal v/c(x)	= 0.879		

Level of Service Worksheet

Direction /LnGrp		g/C Ratio	d -	Adj	Lane Group Cap	d	d -	Lane Grp Del	Grp	Delay By App	LOS By App
EB											
T	0.672	0.267	18.7	0.850	993	16	1.3	17.	l C	30.7	D
R	0.999	0.267	20.9	0.850	844	16	23.7	41.5	5 E		
WB											
L	1.000	0.440	16.0	0.850	779	16	24.9	38.	5 D	24.0	C
T	0.866	5 0.440	14.4	0.850	1639	16	3.7	16.	0 C		
NB											
SB											
L	0.387	7 0.173	20.9	0.850	282					30.8	D
R		5 0.067			106		24.3		7 E		
		Interse	ction	Delay 	= 26.	9 sec/ 	veh In 	terse	ction	LOS =	D

HCM: SIGNALIZED INTERSECTION SUMMARY Version 2.4g 03-07-2001

Center For Microcomputers In Transportation

Streets: (E-W) Sr-2

(N-S) SB Exit

Streets: (E-	-W) Sr-2			S) SB Ex								
Analyst: Tc File Name: BPM05IM.HC9 Area Type: Other 1-17-1 PM Comment: Imp Under Design (2005)												
		(2005)	T - T.	-T FM								
			:====	=======	:=====	======		===				
	Eastbound			North			hboun					
	L T R	L T	R	L T	R	L	T	R				
			j -									
No. Lanes	0 2 2	1 2	0	0 0	0	1	0	1				
Volumes		460 1296	ļ			136		118				
Lane W (ft)	!	12.0 12.0				12.0	1	.2.0				
RTOR Vols	150	1	0				_	0				
Lost Time	•	3.00 3.00	i			3.00	3	.00				
		Signal Opera	etion									
Phase Combi	nation 1 2	3 4		5	5	6	7	8				
EB Left	11001011 1 2	5 4	NB	Left	-	-	•	-				
Thru	* ,			Thru								
Right	*		i	Right								
Peds			İ	Peds								
WB Left	*		SB	Left	*	*						
Thru	*		1	Thru								
Right				Right	*							
Peds				Peds								
NB Right			EB									
SB Right		.	WB	_	F 03 F	- 07						
Green	20.0A 25.0		,			5.0A 3.0						
Yellow/AR	3.0 3.0			low/AR								
Cycle Lengt	h: 67 secs P	nase combina 				+5 #6						
		ection Perfo										
Lane		at v/c	g/c		-	Ap	proac	h:				
Mvmts		w Ratio	_		ay Lo		elay	LOS				
EB T	1112 372		0.29				5.0	C				
R	945 316					В						
WB L	660 177						3.5	D				
T	1390 372					D a = -		_				
SB L	316 162						5.0	E				
R	118 158	33 1.049	0.0			F	- 100	- D				

			Intersect	ion Pert	ormance S	Summary			
	Lane	Group:	Adj Sat	v/c	g/C	•		Approac	ch:
	Mvmts	Cap	Flow	Ratio	Ratio	Delay	LOS	Delay	LOS
								-	
EB	T	1112	3725	0.820	0.299	17.6	C	16.0	C
	R	945	3167	0.490	0.299	12.8	В		
WB	L	660	1770	0.733	0.373	14.6	В	33.5	D
	T	1390	3725	1.030	0.373	39.8	D		
SB	L	316	1626	0.453	0.194	16.1	С	56.0	E
	R	118	1583	1.049	0.075	101.9	F		
				T	00 4	/ 1		TOO	_

Intersection Delay = 28.4 sec/veh Intersection LOS = D Lost Time/Cycle, L = 9.0 sec Critical v/c(x) = 0.828

HCM: SIGNALIZED INTERSECTION SUMMARY Version 2.4g 03-07-2001 Center For Microcomputers In Transportation

Streets: (E-W) Sr-2

(N-S) SB Exit

Analyst: Tc

File Name: BPM05IM.HC9

Area Type: Other

1-17-1 PM

Comment: Imp	Und	er Des	sign ((2005)								
=========	====	=====		=====	=	====:	====	=====	======		====:	=====
		astboı			stboun		!	orthbo			thbo	
	L	${f T}$	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	2	2	1	2	0	0	0	0	1	0	1
Volumes		826	540	460	1296					136		118
PHF or PK15		0.95	0.95	0.95	0.95					0.95		0.95
Lane W (ft)		12.0	12.0	12.0	12.0		ļ			12.0		12.0
Grade		0		}	0					ļ	0	
% Heavy Veh	ĺ	2	2	2	2					11		2
Parking	N	N		N	N		ĺ			N	N	
Bus Stops	İ		0	İ		0	Ì					0
Con. Peds	ĺ		0	İ		0	İ		0			0
Ped Button	(Y/N) N		(Y/N) N		İ			(Y/N)	N	
Arr Type		3	3	3	3		İ			3		3
RTOR Vols	Ì		150	Ì		0	İ			i		0
Lost Time	ì	3.00	3.00	3.00	3.00		i			3.00		3.00
Prop. Share	j.						İ			İ		
Prop. Prot.				1			i			İ		
				Signa	1 Open	ratio	ns					
Phase Combi	natio	on 1	2	3	4	4			5	6	7	8
EB Left						NE	Le	eft				
Thru		*				- 1	Tl	nru				

			Sign	ıal Op	erat	ions	3				
Pha	se Combination	n 1	2	3	4			5	6	7	8
EB	Left					NB	Left				
	Thru	*					Thru				
	Right	*			ĺ		Right				
	Peds						Peds				
WB	Left		*		İ	SB	Left	*	*		
	Thru		*		ĺ		Thru				
	Right				İ		Right	*			2
	Peds				İ		Peds				
NB	Right				į	EB	Right				
SB	Right				į	WB	Right				
Gre	_	0.0A 25	.0A			Gre	en	5.0A	5.0A		
Yel	low/AR	3.0 3	.0		j	Yel	low/AR	3.0	3.0		
		7 secs	Phase	combi	nat:	ion	order:	#1 #2	#5 #6		

							. 		
	Lane Mvmts	Group: Cap	Intersect: Adj Sat Flow	ion Perfo v/c Ratio	g/C	Summary Delay	LOS	Approac Delay	ch: LOS
EB	T	1112	3725	0.820	0.299	17.6	C	16.0	С
	R	945	3167	0.490	0.299	12.8	В		
WB	L	660	1770	0.733	0.373	14.6	В	33.5	D
	T	1390	3725	1.030	0.373	39.8	D		
SB	L	316	1626	0.453	0.194	16.1	C	56.0	E
	R	118	1583	1.049	0.075	101.9	F		
		Inte	ersection :	Delay =	28.4 sed	c/veh Int	cersec	tion LOS	= D
Lost	: Time/	Cycle, L	= 9.0 s	ec Cri	tical v/	c(x) =	= 0.82	8	

HCS: Signalized Intersection Version 2.4g 03-07-2001 1

Center For Microcomputers In Transportation

University of Florida

512 Weil Hall

Gainesville, FL 32611-2083 (904) 392-0378

Streets: (E-W) Sr-2 (N-S) SB Exit

Analyst: Tc File Name: BPM05IM.HC9

Area Type: Other 1-17-1 PM

Comment: Imp Under Design (2005)

Traffic and Roadway Conditions

Į.	Ea	stbou	ınd	Wes	tboun	.d	No	rthbo	und	Sout	thbo	und
	L	T	R	L	${f T}$	R	L	T	R	L	T	R
No. Lanes	0	2	2	1	2	0	0	0	0	1	0	1
Volumes		826	540	460	1296					136		118
PHF or PK15		0.95	0.95	0.95	0.95					0.95		0.95
Lane W (ft)		12.0	12.0	12.0	12.0					12.0		12.0
Grade		0			0						0	
% Heavy Veh		2	2	2	2		1			11		2
Parking	N	N		N	N					N	N	ſ
Bus Stops			0	İ		0						0
Con. Peds			0			0	1		0			0
Ped Button	(Y/N)	N		(Y/N)) N		1			(A/N)	N	
Arr Type		3	3	3	3		1			3		3
RTOR Vols	İ		150			0	l					0
Lost Time		3.00	3.00	3.00	3.00					3.00		3.00

Signal Operations

Pha EB	se Combination Left	1	2	3	4	NB	Left	5	6	7	8
	Thru	*					Thru				
	Right	*					Right				
	Peds					 	Peds				
WB	Left		*			SB	Left	*	*		
	Thru		*			İ	Thru				
	Right					1	Right	*			
	Peds						Peds				
NB	Right					EB	Right				
SB	Right				*	WB	Right				
	5"						J				
		.0A 25	.0A			Gre		5.0A	5.0A		
Yel	low/AR 3	.0 3	. 0			Yel	low/AR	3.0	3.0		

Cycle Length: 67 secs Phase combination order: #1 #2 #5 #6

HCS: Signalized Intersection Version 2.4g

Streets: (E-W) Sr-2

(N-S) SB Exit

Analyst: Tc

File Name: BPM05IM.HC9

Area Type: Other

1-17-1 PM

Comment: Imp Under Design (2005)

Volume Adjustment Worksheet

Direction/ Mvt	Mvt Vol	PHF	Adj Vol	Lane Grp	Lane Grp Vol	No. Ln	Lane Util Fact	Growth Fact	Adj Grp Vol	Prop LT	Prop RT
MVC	VOI	PHF	VOI	grb	VOI	דינד	ract	ract	VOI	71.1	KI
EB											
Thru	826	0.95	869	${f T}$	869	2	1.050	1.000	912	0.00	0.00
Right	540	0.95	410	R	410	2	1.130	1.000	463	0.00	1.00
WB											
Left	460	0.95	484	L	484	1	1.000	1.000	484	1.00	0.00
Thru	1296	0.95	1364	T	1364	2	1.050	1.000	1432	0.00	0.00
SB											
Left	136	0.95	143	L	143	1	1.000	1.000	143	1.00	0.00
Right	118	0.95	124	R	124	1	1.000	1.000	124	0.00	1.00

Saturation Flow Adjustment Worksheet

	Direction /LnGrp	Ideal Sat Flow	No. Lns	f W	f HV	f G	f p	f BB	f A	f RT	f LT	Adj Sat Flow
	EB											
	T	1900	2	1.00	0.98	1.00	1.00	1.00	1.00	1.00	1.00	3725
	R	1900	2	1.00	0.98	1.00	1.00	1.00	1.00	0.85	1.00	3167
	WB											
	L	1900	1	1.00	0.98	1.00	1.00	1.00	1.00	1.00	0.95	1770
	T	1900	2	1.00	0.98	1.00	1.00	1.00	1.00	1.00	1.00	3725
	SB											
	${f r}$	1900	1	1.00	0.90	1.00	1.00	1.00	1.00	1.00	0.95	1626
	R	1900	1	1.00	0.98	1.00	1.00	1.00	1.00	0.85	1.00	1583

HCS: Signalized Intersection Version 2.4g 03-07-2001 3 ______

Streets: (E-W) Sr-2

(N-S) SB Exit

Analyst: Tc

File Name: BPM05IM.HC9

Area Type: Other

1-17-1 PM

Comment: Imp Under Design (2005)

Capacity Analysis Worksheet

	Adj	Adj Sat			Lane Group					
Direction	Flow Rate	Flow Rate	Ratio	Green Ratio						
/LnGrp	(v)	(s)	(v/s)	(g/C)	(c)	Ratio				
EB										
T	912	3725	0.245	0.299	1112	0.820	*			
R	463	3167	0.146	0.299	945	0.490				
WB										
L	484	1770	0.274	0.373	660	0.733				
T	1432	3725	0.384	0.373	1390	1.030	*.			
NB										
SB										
L	143	1626	0.088	0.194	316	0.453	*			
R	124	1583	0.078	0.075	118	1.051				
			Sum (v/s) critical	= 0.717					
Lost Time	/Cycle, L =	9.0 sec	Criti	cal v/c(x)	= 0.828					

Level of Service Worksheet

Direction /LnGrp		٠.	ď		Lane Group Cap	đ	d _	Lane Grp Del	Grp	Delay By App	LOS By App
EB T		0.299			1112					16.0	С
R	0.490	0.299	14.7	0.850	945	16	0.3	12.8	в в		
WB											
L		0.373								33.5	D
${f T}$	1.030	0.373	16.0	0.850	1390	16	26.3	39.	8 D		
NB											
SB											
L	0.453	0.194	18.1	0.850	316	16	0.7	16.	1 C	56.0	E
R		0.075						101.	-		
Intersection Delay = 28.4 sec/veh Intersection LOS = D											

Center For Microcomputers In Transportation

Streets: (E-Analyst: Tc Area Type: (Comment: Imp	Other	r Design			Fi] 1-3	-S) SB Le Nam L7-1 a	e: BAI m				
		stbound					thbou				===== und
	L 	T R					T	:	L	T	R
No. Lanes Volumes Lane W (ft) RTOR Vols Lost Time	0	2 2 1090 122 12.0 12.	1 0 1250 0 12.0	2 1700 12.0	0	0		0	240		120
				l Oper	ation	ns					
Phase Combine EB Left Thru Right Peds WB Left Thru Right Peds NB Right SB Right Green Yellow/AR Cycle Lengt	20	* * * .0A 33.0	A		SB EB WB Gr Ye	Thru Righ Peds Righ Righ een llow/	: it it : : : : : : : : : : : : : : : :	A 5.0	* 0A 0	7	8
	Cap	Inters Adj S Flo	at w I	v/c	g/ Rat	C io I	Delay	LOS	D	elay	

	Lane	Group:	Intersecti	ion Perfo v/c	rmance s	Summary		Approac	ch:
	Mvmts	Cap	Flow	Ratio	Ratio	Delay	LOS	Delay	LOS
EB	${f T}$	993	3725	1.212	0.267	*	*	*	*
	R	844	3167	1.506	0.267	*	*		
WB	L	779	1770	1.690	0.440	*	*	*	*
	T	1639	3725	1.146	0.440	*	*		
SB	L	282	1626	0.898	0.173	39.9	D	*	*
	R	106	1583	1.194	0.067	*	*		
		Inte	rsection :	Delay = *	(sec/v	eh) Int	tersec	tion LOS	= *

(g/C)*(V/c) is greater than one. Calculation of D1 is infeasible.

Center For Microcomputers In Transportation

Streets: (E-W) Sr-2

(N-S) SB Exit

Analyst: Tc File Name: BAM25IM.HC9

Area Type: Other 1-17-1 am

Comment: Imp Under Design (2025)

=========												
	Ea	astbou	und	Wes	tboun	.d	No	rthbo	und	Sou	thbo	und
	L	${f T}$	R	L	T	R	L	${f T}$	R	L	T	R
No. Lanes	0	2	2	1	2	0	0	0	0	1	0	1
Volumes		1090	1220	1250	1700]				240		120
PHF or PK15		0.95	0.95	0.95	0.95					0.95		0.95
Lane W (ft)		12.0	12.0	12.0	12.0					12.0		12.0
Grade		0			0	,	İ				0	
% Heavy Veh		2	2	2	2					11		2
Parking	N	N		N	N		1			N	N	
Bus Stops			0			0						0
Con. Peds			0			0	1		0	1		0
Ped Button	(Y/N) N		(Y/N) N					(Y/N)	N	
Arr Type		3	3	3	3					3		3
RTOR Vols			150			0						0
Lost Time		3.00	3.00	3.00	3.00					3.00		3.00
Prop. Share												
Prop. Prot.				1							•	

	Signal Operations											
Pha:	se Combinatio	n 1	2	3	4			5	6	7	8	
EB	Left					NB	Left					
	Thru	*			•		Thru					
	Right	*					Right					
	Peds						Peds					
WB	Left		*			SB	Left	*	*			
1	Thru		*			Ì	Thru					
	Right					ĺ	Right	*				
	Peds					İ	Peds					
NB	Right					EB	Right				,	
SB	Right					WB	Right					
Gre	en 2	0.0A 33	.0A			Gre	en	5.0A	5.0A			
Yel	low/AR	3.0 3	. 0			Yel	low/AR	3.0	3.0			
Сус	le Length: 7	5 secs	Phase	com	binat	ion	order:	#1 #2	#5 #6			

			Intersect	ion Perf	ormance s	Summary			
	Lane	Group:	Adj Sat	v/c	g/C	-		Approac	ch:
	Mvmts	Cap	Flow	Ratio	Ratio	Delay	LOS	Delay	LOS
EB	T	993	3725	1.212	0.267	*	*	*	*
	R	844	3167	1.506	0.267	*	*		
WB	L	779	1770	1.690	0.440	*	*	*	*
	T	1639	3725	1.146	0.440	*	*		
SB	L	282	1626	0.898	0.173	39.9	D	*	*
	R	106	1583	1.194	0.067	*	*		
		Inte	ersection	Delay =	* (sec/v	eh) Int	cersec	tion LOS	= *
(a/0	7) * (V/c)	is grea	ater than	one. Cal	culation	of D1 is	s infe	asible.	

(g/C)*(V/C) is greater than one. Calculation of D1 is infeasible. _____

Center For Microcomputers In Transportation

University of Florida

512 Weil Hall

Gainesville, FL 32611-2083 (904) 392-0378

Streets: (E-W) Sr-2

(N-S) SB Exit

Analyst: Tc File Name: BAM25IM.HC9

Area Type: Other 1-17-1 am

Comment: Imp Under Design (2025)

Traffic and Roadway Conditions _____

	Eastbound		ınd	Westbound			No	rthbo	und	Southbou		ınd
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	2	2	1	2	0	0	0	0	1	0	1
Volumes		1090	1220	1250	1700					240		120
PHF or PK15		0.95	0.95	0.95	0.95					0.95		0.95
Lane W (ft)		12.0	12.0	12.0	12.0					12.0		12.0
Grade		0			0		1			1	0	
% Heavy Veh		2	2	2	2		İ			11		2
Parking	N	N		N	N		ĺ			N	N	
Bus Stops			0	ĺ		0						0
Con. Peds	İ		0	İ		0	Ì		0			0
Ped Button	(Y/N)) N		(Y/N)) N					(Y/N)	N	
Arr Type	ĺ	3	3	3	3		İ			3		3
RTOR Vols	İ		150	İ		0	ĺ					0
Lost Time	İ	3.00	3.00	3.00	3.00		Ì			3.00		3.00

Signal Operations

	,		5191	a. Op		. 1 0 11 2	, 				
Phas EB	se Combination Left	1	2	3	4	NB	Left	5	6	7	8
	Thru Right Peds	*					Thru Right Peds				
WB	Left Thru Right Peds		*			SB	Left Thru Right Peds	* *	*		
NB SB	Right Right					EB WB	Right Right				
Gre Yel		.0A 33	.0A .0			Gre Yel	en low/AR	5.0A 3.0	5.0A 3.0		

Cycle Length: 75 secs Phase combination order: #1 #2 #5 #6

Streets: (E-W) Sr-2

(N-S) SB Exit

Analyst: Tc

File Name: BAM25IM.HC9

Area Type: Other

1-17-1 am

Comment: Imp Under Design (2025)

Volume Adjustment Worksheet

Direc-	•				Lane		Lane		Adi		
tion/	Mvt		Adi	Lane	Grp	No.	Util	Growth	Grp	Prop	Prop
Mvt	Vol	PHF	Vol	Grp	Vol	Ln	Fact	Fact	_	_	_
1.1 V C	VO1	E III.	VOI	Grb	VOI	7.11	ract	Fact	Vol	LT	RT
EB											
Thru	1090	0.95	1147	T	1147	2	1.050	1.000	1204	0.00	0.00
Right	1220	0.95	1126	R	1126	2	1.130	1.000	1272	0.00	1.00
WB											
Left	1250	0.95	1316	L	1316	1	1.000	1.000	1316	1.00	0.00
Thru	1700	0.95	1789	${f T}$	1789	2	1.050	1.000	1878	0.00	0.00
SB											0.00
Left	240	0.95	253	L	253	1	1.000	1.000	253	1.00	0.00
Right	120	0.95	126	R	126	1	1.000	1.000	126	0.00	1.00

Saturation Flow Adjustment Worksheet

Direction /LnGrp	Ideal Sat Flow	No. Lns	f W	f HV	f G	f p	f BB	f A	f RT	f LT	Adj Sat Flow
EB											
T	1900	2	1.00	0.98	1.00	1.00	1.00	1.00	1.00	1.00	3725
R	1900	2	1.00	0.98	1.00	1.00	1.00	1.00	0.85	1.00	3167
WB											
L	1900	1	1.00	0.98	1.00	1.00	1.00	1.00	1.00	0.95	1770
T	1900	2	1.00	0.98	1.00	1.00	1.00	1.00	1.00	1.00	3725
SB											
L	1900	1	1.00	0.90	1.00	1.00	1.00	1.00	1.00	0.95	1626
R	1900	1	1.00	0.98	1.00	1.00	1.00	1.00	0.85	1.00	1583

Streets: (E-W) Sr-2

(N-S) SB Exit

Analyst: Tc

File Name: BAM25IM.HC9

Area Type: Other

1-17-1 am

Comment: Imp Under Design (2025)

Capacity Analysis Worksheet

Direction /LnGrp		Adj Sat Flow Rate (s)	Ratio	Green Ratio			
EB							
T	1204	3725	0.323	0.267	993	1.212	
R	1272	3167	0.402	0.267	844	1.507	*
WB							
L	1316	1770	0.744	0.440	779	1.689	*
T	1878	3725	0.504	0.440	1639	1.146	
NB							
SB							
${f L}$	253	1626	0.156	0.173	282	0.897	*
R	126	1583	0.080	0.067	106	1.189	
				[v/s] critical			
Lost Time	e/Cycle, L =	9.0 sec	Criti	.cal v/c(x)	= 1.478		

Level of Service Worksheet

Direction	•	g/C	d	Del Adj	Group	đ	d	Grp	${\tt Grp}$	Ву	Ву
/LnGrp	Ratio	Ratio	1	Fact	Cap	2	2	Del	LOS	App	App
EB											
T	1.212	0.267	*	0.850	993	16	*	*	*	*	*
R	1.506	0.267	*	0.850	844	16	*	*	*		
WB											
L	1.690	0.440	*	0.850	779	16	*	*	*	*	*
T	1.146	0.440	*	0.850	1639	16	*	*	*		
NB											
SB											
L	0.898	0.173	23.1	0.850	282	16	20.3	39.	9 D	*	*
R	1.194	0.067	*	0.850	106	16	*	*	*		
•	:	Interse	ction :	Delay	= * (s	ec/veh) In	terse	ction	LOS =	*
* Delay a	nd LOS	not me	aningf	ul whe	n any	v/c is	great	er tha	an 1.	2 or 1	/PHF

Delay and LOS not meaningful when any v/c is greater than 1.2 or 1/PHF

Center For Microcomputers In Transportation

Streets: (E-W) Sr-2

(N-S) SB Exit

Analyst: Tc

File Name: BPM25IM.HC9

Area Type: Other 1-17-1 PM

Comment: Imp Under Design (2025)

	Eastbound			Westbound			No:	rthbo	und	Sou	thbo	und
	L	T	R	L	T	R	L	T	R	L	${f T}$	R
No. Lanes	0	2	2	1	2	0	0	0	0	1	0	1
Volumes		1620	810	860	2090					190		220
Lane W (ft)		12.0	12.0	12.0	12.0		ĺ			12.0		12.0
RTOR Vols			150			0	1					0
Lost Time		3.00	3.00	3.00	3.00					3.00		3.00

0:----

	Signal Operations											
Phase Combina	tion 1	2	3	4			5	6	7	8		
EB Left					NB	Left						
Thru	*					Thru						
Right	*					Right						
Peds						Peds						
WB Left		*			SB	Left	*	*				
Thru		*				Thru						
Right						Right	*					
Peds						Peds						
NB Right					EB	Right						
SB Right					WB	Right						
Green	20.0A 2	5.0A			Gre	en	5.0A	5.0A				
Yellow/AR	3.0	3.0			Yel	low/AR	3.0	3.0				
Cycle Length:	67 secs	Phas	e cor	mbinat	ion	order:	#1 #2	#5 #6				

Tokasan akilan Barifaran a Gunaran

			Intersecti	ion Perf	ormance S	Summary			
	Lane	Group:	Adj Sat	v/c	g/C			Approac	ch:
	Mvmts	Cap	Flow	Ratio	Ratio	Delay	LOS	Delay	LOS
EB	T	1112	3725	1.610	0.299	*	*	*	*
	R	945	3167	0.830	0.299	18.6	С		
WB	L	660	1770	1.371	0.373	*	*	*	*
	T	1390	3725	1.662	0.373	*	*		
SB	L	316	1626	0.634	0.194	18.9	C	*	*
	R	118	1583	1.963	0.075	*	*		
				n 7		. 1 \			

Intersection Delay = * (sec/veh) Intersection LOS = * (g/C)*(V/c) is greater than one. Calculation of D1 is infeasible.

HCM: SIGNALIZED INTERSECTION SUMMARY Version 2.4g 03-07-2001 Center For Microcomputers In Transportation

Streets: (E-W) Sr-2

(N-S) SB Exit

Analyst: Tc

File Name: BPM25IM.HC9

Area Type: Other 1-17-1 PM

Comment: Imp	Unde	er Des	sign (=====	(2025) =====	=====	===:	===	====	====	=====		====	=====
	Εa	astbou	ind	Wes	tboun	ıd	ŀ	Nor	thbo	und	Sou	thbo	ound
	L	T	R	L	${f T}$	R		L	T	R	L	T	R
							- -						
No. Lanes	0	2	2	1	2	0		0	0	0	1	0	1
Volumes		1620	810	860	2090						190		220
PHF or PK15		0.95	0.95	0.95	0.95						0.95		0.95
Lane W (ft)]	12.0	12.0	12.0	12.0						12.0		12.0
Grade		0			0							()
% Heavy Veh		2	2	2	2						11		2
Parking	N	N		N	N		İ				N	I	N.
Bus Stops	İ		0	ĺ			0						0
Con. Peds	İ		0	İ			0			0	Ì		0
Ped Button	(Y/N) N		(Y/N) N		ĺ				(Y/N)	N	
Arr Type		3	3	3	3		İ				3		3
RTOR Vols			150	i			οĺ				İ		0
Lost Time	İ	3.00	3.00	3.00	3.00		i				3.00		3.00
Prop. Share							İ				i		
Prop. Prot.				i			i				İ		
													
				Signa	l Ope	rati	on	S					
Phase Combi	natio	n 1	2	3	_	4				5	6	7	8
EB Left						N	ΙB	Lef	t				
Thru		*				i		ייר קידי					

			Sign	nal Op	erat	ions	}				
Phas	se Combination	1	2	3	4			5	6	7	8
EB	Left				1	NB	Left				
	Thru	*			1		Thru				
	Right	*			İ		Right				
	Peds				į		Peds				
WB	Left		*		į	SB	Left	*	*		
	Thru		*				Thru				
	Right						Right	*			
	Peds						Peds				
NB	Right					EB	Right				
SB	Right					WB	Right				
Gre		.0A 25	.0A			Gre	-	5.0A	5.0A		
-	ellow/AR 3.0 3.0 Yellow/AR 3.0 3.0										
			701	1		1					

Cycle Length: 67 secs Phase combination order: #1 #2 #5 #6

	Lane	Group:	Intersect Adj Sat	ion Perfo v/c	ormance S g/C	Summary		Approac	ch:				
	Mvmts	Cap	Flow	Ratio	Ratio	Delay	LOS	Delay	LOS				
EB	T	1112	3725	1.610	0.299	*	*	*	*				
	R	945	3167	0.830	0.299	18.6	C						
WB	L	660	1770	1.371	0.373	*	*	*	*				
	T	1390	3725	1.662	0.373	*	*						
SB	L	316	1626	0.634	0.194	18.9	C	*	*				
	R	118	1583	1.963	0.075	*	*						
		Int	ersection	Delay =	* (sec/v	eh) Int	cersec	tion LOS	= *				
1-1	71 4 /77 /		ator than			of DI i	= infe	acible					

(g/C)*(V/c) is greater than one. Calculation of D1 is infeasible. _____

Center For Microcomputers In Transportation

University of Florida

512 Weil Hall

Gainesville, FL 32611-2083 (904) 392-0378

Streets: (E-W) Sr-2 (N-S) SB Exit

Analyst: Tc File Name: BPM25IM.HC9

Area Type: Other 1-17-1 PM

Comment: Imp Under Design (2025)

Traffic and Roadway Conditions

	Eastbound		Westbound			No	rthbo	und	Southbound		ound	
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	2	2	1	2	0	0	0	0	1	0	1
Volumes		1620	810	860	2090					190		220
PHF or PK15		0.95	0.95	0.95	0.95					0.95		0.95
Lane W (ft)		12.0	12.0	12.0	12.0					12.0		12.0
Grade		0		į	0		Ì					0
% Heavy Veh		2	2	2	2		İ			11		2
Parking	N	N		N	N					N]	N
Bus Stops			0			0						0
Con. Peds			0	1		0			0			0
Ped Button	(Y/N)	N		(Y/N)) N					(X/N)	N	
Arr Type	İ	3	3	3	3		ļ			3		3
RTOR Vols			150	ĺ		0						0
Lost Time	İ	3.00	3.00	3.00	3.00					3.00		3.00

Signal Operations

Pha EB	se Combination Left	1 1	2	3	4	NB	Left	5	6	. 7	8
	Thru Right	*					Thru Right				
	Peds						Peds				
WB	Left Thru		*			SB	Left Thru	*	*		
	Right Peds						Right Peds	*			
NB SB	Right Right					EB	Right Right				
Gre Yel		0.0A 25 3.0 3	5.0A 3.0			Gre Yel	en low/AR	5.0A 3.0	5.0A 3.0		

Cycle Length: 67 secs Phase combination order: #1 #2 #5 #6

Streets: (E-W) Sr-2

(N-S) SB Exit

Analyst: Tc

File Name: BPM25IM.HC9

Area Type: Other

1-17-1 PM

Comment: Imp Under Design (2025)

Volume Adjustment Worksheet

Direction/	Mvt Vol	PHF	Adj Vol	Lane Grp	Lane Grp Vol	No.	Lane Util Fact	Growth Fact	Adj Grp Vol	Prop LT	Prop RT
EB											
Thru	1620	0.95	1705	T	1705	2	1.050	1.000	1790	0.00	0.00
Right	810	0.95	695	R	695	2	1.130	1.000	785	0.00	1.00
WB											
Left	860	0.95	905	L	905	1	1.000	1.000	905	1.00	0.00
Thru	2090	0.95	2200	${f T}$	2200	2	1.050	1.000	2310	0.00	0.00
SB											
Left	190	0.95	200	L	200	1	1.000	1.000	200	1.00	0.00
Right	220	0.95	232	R	232	1	1.000	1.000	232	0.00	1.00

Saturation Flow Adjustment Worksheet

		Ideal										Adj
	rection nGrp		No. Lns	f W	f HV	f G	f p	f BB	f A	f RT	f LT	Sat Flow
EB												
	T	1900	2	1.00	0.98	1.00	1.00	1.00	1.00	1.00	1.00	3725
	R	1900	2	1.00	0.98	1.00	1.00	1.00	1.00	0.85	1.00	3167
WB												
	L	1900	1	1.00	0.98	1.00	1.00	1.00	1.00	1.00	0.95	1770
	T	1900	2	1.00	0.98	1.00	1.00	1.00	1.00	1.00	1.00	3725
SB												
	L	1900	1	1.00	0.90	1.00	1.00	1.00	1.00	1.00	0.95	1626
	R	1900	1	1.00	0.98	1.00	1.00	1.00	1.00	0.85	1.00	1583

Streets: (E-W) Sr-2 (N-S) SB Exit

Analyst: Tc File Name: BPM25IM.HC9

Area Type: Other 1-17-1 PM

Comment: Imp Under Design (2025)

Capacity Analysis Worksheet

Direction	Adj Flow Rate	Adj Sat Flow Rate			Lane Group Capacity	v/c	
/LnGrp	(v)	(s)	(v/s)	(g/C)	(c)	Ratio	
EB							
T	1790	3725	0.480	0.299	1112	1.610	*
R	785	3167	0.248	0.299	945	0.831	
WB							
L	905	1770	0.511	0.373	660	1.371	
T	2310	3725	0.620	0.373	1390	1.662	*
NB							
SB							
L	200	1626	0.123	0.194	316	0.633	*
R	232	1583	0.147	0.075	118	1.966	
			Sum	(v/s) critical	L = 1.224		
Lost Time	/Cycle, L =	9.0 sec	Criti	cal v/c(x)	= 1.413		

Level of Service Worksheet

						. – – – – -					
Direction		_	ď	Del Adj	Group	d	ď	Grp	Grp	Ву	Ву
/LnGrp	Ratio I	Ratio	Т	Fact	Cap	2	2	Del	LOS	App	App
EB											
T	1.610	0.299	*	0.850	1112	16	*	*	*	*	*
R	0.830	0.299	16.7	0.850	945	16	4.5	18.	5 C		
WB											
L	1.371	0.373	*	0.850	660	16	*	*	*	*	*
T	1.662	0.373	*	0.850	1390	16	*	*	*		
NB											
SB											
L	0.634	0.194	18.9	0.850	316	16	2.9	18.	9 C	*	*
R	1.963	0.075	*	0.850	118	16	*	*	*		
	I	interse	ction	Delay	= * (s	ec/veh) In	terse	ction	LOS =	*
* Delay a	nd LOS	not me	aningf	ul whe	n any '	v/c is	great	er th	an 1.	2 or 1	/PHF



Center For Microcomputers In Transportation

Streets: (E-W) SR-2

(N-S) NB Exit Ramp

Analyst: TC

File Name: INTC05AM.HC9

Area Type: CBD 1-30-1 AM

Comment: 2005

=========												
	Ea	stbou	ınd	We	stbou	nd	No:	rthbo	und	Sou	ıthbou	ınd
	L	${f T}$	R	L	${f T}$	R	L	T	R	L	${f T}$	R
No. Lanes	2	0	2	0	0	0	0	2	< 0	1	2	0
Volumes	540		490					1484	136	118	590	
Lane W (ft)	12.0		12.0					12.0		12.0	12.0	
RTOR Vols			0						0			0
Lost Time	3.00		3.00					3.00	3.00	3.00	3.00	

			Sig	nal Op	erat	cions	S				
Pha	se Combinatio	n 1	2	3	4			5	6	7	8
EB	Left	*				NB	Left				
	Thru						Thru	*			
	Right	*					Right	*			
	Peds						Peds				
WB	Left					SB	Left	*	*		
	Thru						Thru	*			
	Right						Right				
	Peds					1	Peds				
NB	Right					EB	Right		*		
SB	Right					WB	Right				
Gre	en 1	5.0A				Gre	en 4	5.0A	5.0A		
Yel	low/AR	3.0				Yel	low/AR	3.0	3.0		
Сус	le Length: 7	4 secs	Phase	combi	nat	ion	order:	#1 #5	#6		

Intersection Performance Summary												
	Lane	Group:	Adj Sat	v/c	g/C			Approac	ch:			
	Mvmts	Cap	Flow	Ratio	Ratio	Delay	LOS	Delay	LOS			
EB	L	583	2875	1.004	0.203	48.7	E	32.9	D			
	R	800	2573	0.729	0.311	17.0	C					
NB	TR	1817	2988	0.985	0.608	22.5	C	22.5	C			
SB	L	238	1438	0.521	0.716	16.7	C	6.6	В			
	T	1841	3027	0.354	0.608	4.7	A					
		T t.		D - 7	22 1	- /1- T1		L TOO	~			

Center For Microcomputers In Transportation

Streets: (E-W) SR-2

(N-S) NB Exit Ramp

Analyst: TC

File Name: INTC05AM.HC9

Area Type: CBD 1-30-1 AM

Comment: 2005

,	Eas	stbou	ınd	Wes	stbou	nd	Nor	rthbou	ınd	Sou	ıthbou	nd
	L	${f T}$	R	L	T	R	L	T	R	L	\mathbf{T}	R
No. Lanes	2	0	2	0	0	0	0	2 <	< 0	1	2	0
Volumes	540		490					1484	136	118	590	
PHF or PK15	0.95		0.95					0.95	0.95	0.95	0.95	
Lane W (ft)	12.0		12.0					12.0		12.0	12.0	
Grade		0						0			0	
% Heavy Veh	13		13					13	13	13	13	
Parking	N	N					N	N		N	N	
Bus Stops			0						0			0
Con. Peds			0			0			0			0
Ped Button	(X/N)	N					(Y/N)) N		(Y/N)) N	
Arr Type	3		3				1	3		3	3	
RTOR Vols			0						0			0
Lost Time	3.00		3.00				1	3.00	3.00	3.00	3.00	
Prop. Share							[
Prop. Prot.												

			•			,			•		
			Sig	nal Op	erat	ion	s				
Pha	se Combination	1	2	3	4			5	6	7	8
EB	Left	*				NB	Left				
	Thru					Ì	Thru	*			
	Right	*				ĺ	Right	*			
	Peds						Peds				
WB	Left					SB	Left	*	*		
	Thru					ĺ	Thru	*			
	Right					1	Right				
	Peds					Ì	Peds				
NB	Right					EB	Right		*		
SB	Right					WB	Right				
Gre	en 15	.0A				Gre	en 45	.0A	5.0A		
Yel	low/AR 3	. 0				Yel	low/AR 3	. 0	3.0		

Cycle Length: 74 secs Phase combination order: #1 #5 #6

| Intersection Performance Summary | Lane Group: Adj Sat v/c g/C | Approach: Mymts | Cap | Flow | Ratio | Ratio | Delay | LOS | Delay | LOS | LOS | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS | De

Lost Time/Cycle, L = 6.0 sec Critical v/c(x) = 0.914

Center For Microcomputers In Transportation

University of Florida

512 Weil Hall

Gainesville, FL 32611-2083 (904) 392-0378

Streets: (E-W) SR-2

(N-S) NB Exit Ramp

Analyst: TC

File Name: INTC05AM.HC9

Area Type: CBD

1-30-1 AM

Comment: 2005

Traffic and Roadway Conditions

	Eas	stboı	ınd	Wes	stbou	ınd	No	rthboi	ınd	Sou	ıthbou	ınd
	L	\mathbf{T}	R	L	T	R	L	\mathbf{T}	R	L	T	R
				-								
No. Lanes	2	0	2	0	0	0	0	2 4	< 0	1	2	0
Volumes	540		490					1484	136	118	590	
PHF or PK15	0.95		0.95					0.95	0.95	0.95	0.95	
Lane W (ft)	12.0		12.0					12.0		12.0	12.0	
Grade		0						0			0	
% Heavy Veh	13		13				1	13	13	13	13	
Parking	N	N					N	N		N	N	
Bus Stops			0						0			0
Con. Peds	ł		0			0			0			0
Ped Button	(X/N)	N					(Y/N) N		(Y/N)	N	
Arr Type	3		3					3		3	3	
RTOR Vols			0						0	Ì		0
Lost Time	3.00		3.00					3.00	3.00	3.00	3.00	

Signal Operations

								. -	-	
Combination	1	2	3	4			5	6	7	8
eft	*				NB	Left				
ıru					ĺ	Thru	*			
ght	*					Right	*			
eds						Peds				
√f+					 cp	I.oft	*	*		
					100					
					1					
_						_				
eas] 	reas				
iaht					EB	Right		*		
ight					!					
J						3				
15	.0A				Gre	en 45	.0A	5.0A		
v/AR 3	. 0				Yel	low/AR 3	.0	3.0		
	ft ru ght ds ft ru ght ds ght ds ght ds	ru ght * ds ft ru ght ds ght ds ght ght	ft * ru ght * ds ft ru ght ds ft ght ds ght ds	ft * ru ght * ds ft ru ght ds ft ght ds ght ds	ft * ru ght * ds ft ru ght ds ft ght ds ght ds 15.0A	ft * NB ru ght * SB ru ght ds SB ru ght ds SB ght	ft * NB Left ru Thru ght * Right ds Peds ft SB Left ru Thru ght Right ru Right ds Peds ght Right WB Right WB Right 15.0A Green 45	ft * NB Left ru	ft * NB Left ru Thru * ght * Right * ds Peds ft SB Left * * ru Thru * ght Right ds Peds ght EB Right * ght WB Right 15.0A Green 45.0A 5.0A	ft * NB Left ru

Cycle Length: 74 secs Phase combination order: #1 #5 #6

Streets: (E-W) SR-2 (N-S) NB Exit Ramp

Analyst: TC File Name: INTC05AM.HC9

Area Type: CBD 1-30-1 AM

Comment: 2005

Volume Adjustment Worksheet

Direction/ Mvt	Mvt Vol	PHF	Adj Vol	Lane Grp	Lane Grp Vol	No. Ln	Lane Util Fact	Growth Fact	Adj Grp Vol	Prop LT	Prop RT
EB											
Left	540	0.95	568	L	568	2	1.030	1.000	585	1.00	0.00
Right NB	490	0.95	516	R	516	2	1.130	1.000	583	0.00	1.00
Thru	1484	0.95	1562	TR	1705	2	1.050	1.000	1790	0.00	0.08
Right SB	136	0.95	143								
Left	118	0.95	124	L	124	1	1.000	1.000	124	1.00	0.00
Thru	590	0.95	621	T	621	2	1.050	1.000	652	0.00	0.00

Saturation Flow Adjustment Worksheet

	ection Grp	Ideal Sat Flow	No. Lns	f W	f HV	f G	f p	f BB	f A	f RT	f LT	Adj Sat Flow
						- -						
EB												
	L	1900	2	1.00	0.88	1.00	1.00	1.00	0.90	1.00	0.95	2875
	R	1900	2	1.00	0.88	1.00	1.00	1.00	0.90	0.85	1.00	2573
NB												
	TR	1900	2	1.00	0.88	1.00	1.00	1.00	0.90	0.99	1.00	2988
SB											0.09	135
	L	1900	1	1.00	0.88	1.00	1.00	1.00	0.90	1.00	0.95	1438
	T	1900	2	1.00	0.88	1.00	1.00	1.00	0.90	1.00	1.00	3027

Streets: (E-W) SR-2 (N-S) NB Exit Ramp

Analyst: TC File Name: INTC05AM.HC9

Area Type: CBD 1-30-1 AM

Comment: 2005

Supplemental Permitted LT Worksheet

APPROACH	SB
Cycle Length, C	74
Actual Green Time for Lane Group, G	53
Effective Green Time for Lane Group, g	45
Opposing Effective Green Time, go	45
Number of Opposing Lanes, No	2
Number of Lanes in Lane Group, N	1
Adjusted Left-Turn Flow Rate, Vlt	124
Proportion of Left Turns in Lane Group, Plt	1.00
Left Turns per Cycle: LTC=Vlt*C/3600	2.55
Adjusted Opposing Flow Rate, Vo	1790
Opposing Flow per Lane, Per Cycle: Volc=VoC/3600No	18.40
Opposing Platoon Ratio, Rpo	1
Lost time per phase, tl	3
gf=Gexp(-0.882*LTC^0.717)-tl	0.00
Opposing Queue Ratio: qro=1-Rpo(go/C)	0.39
gq = Volc * qro / (.5 - Volc * (1 - qro) / go)-tl	25.68
gu=g-gq (or g-gf)	19.32
fs=(875-0.625Vo)/1000	0.00
$Pl=Plt[1+{(N-1)g/(fs*gu+4.5)}]$	1.00
El1	8.20
fmin	0.09
<pre>fm, (min=fmin; max=1.00)</pre>	0.09
flt=[fm+0.91(N-1)]/N	0.09

Streets: (E-W) SR-2 (N-S) NB Exit Ramp

Analyst: TC File Name: INTC05AM.HC9

Area Type: CBD 1-30-1 AM

Comment: 2005

Capacity Analysis Worksheet

	Adj Flow Rate (v)	Adj Sat Flow Rate (s)	Flow Ratio (v/s)	Green Ratio (g/C)	Lane Group Capacity (c)		
EB							
L	585	2875	0.203	0.203	583	1.003	*
R	583	2573	0.227	0.311	800	0.729	
WB							
NB							
TR	1790	2988	0.599	0.608	1817	0.985	
SB Lsec.	82	135	0.607	0.608	82	1.000	*
Lpri.	42	1438	0.029	0.108	155	0.271	*
Ltot.	124				238	0.521	
T	652	3027	0.215	0.608	1841	0.354	
			Sum (v	/s) critical	L = 0.840		
Lost Time/	Cycle, L =	6.0 sec	Critic	al v/c(x)	= 0.914		

Level of Service Worksheet

Direction /LnGrp	·-	٥.	d	Adj	Group	d	-	Grp	Lane Grp LOS	-	LOS By App
EB											
L	1.004	1 0.203	22.4	0.850	583	16	29.6	48.	7 E	32.9	D
R	0.729	0.311	17.3	0.850	800	16	2.4	17.0	0 C		
WB NB											
TR	0.985	0.608	10.8	0.850	1817	16	13.3	22.	5 C	22.5	C
SB											
L	0.521	1 0.716	17.6	0.850	238	16	1.7	16.	7 C	6.6	В
T	0.354	1 0.608	5.5	0.850	1841	16	0.1	4.	7 A		
]	Interse	ction 1	Delay :	= 22.4	4 sec/ ⁻	veh In	terse	ction	LOS =	C

Streets: (E-W) SR-2 (N-S) NB Exit Ramp

Analyst: TC File Name: INTC05AM.HC9

Area Type: CBD 1-30-1 AM

Comment: 2005

Supplemental Uniform Delay Worksheet

Approach	Southbound
Adj. LT Vol (v)	124
v/c ratio (x)	0.52
Primary phase effective green	8.00
gq from Supplemental LT Worksheet	25.68
gu from Supplemental LT Worksheet	19.32
Red time (r)	21.00
Arrivals qa = $v/(3600(max(x,1)))$	0.03
Primary Ph. Departures Sp=s/3600	0.40
Secondary Ph. Departures Ss=S(Gq+Gu)/(Gu*3600)	0.09
Xperm	1.35
XProt	N/A
Case	5
Queue at begining of green arrow (Qa)	0.59
Queue at beginning of unsaturated green (Qu)	1.61
Residual queue (Qr)	0.00
Uniform Delay	17.65

Center For Microcomputers In Transportation

Streets: (E-W) SR-2 (N-S) NB Exit Ramp

Analyst: TC File Name: INTC05PM.HC9

Area Type: CBD 1-30-1 PM

Comment: 2005

==========												
	Ea	Eastbound		Westbound			No	rthbou	ınd	Southbound		
	L	T	R	L	T	R	L	\mathbf{T}	R	L	T	R
No. Lanes	2	0	2	0	0	0	0	2 <	: 0	1	2	0
Volumes	810		740					976	104	82	880	
Lane W (ft)	12.0		12.0					12.0		12.0	12.0	
RTOR Vols			0						0			0
Lost Time	3.00		3.00					3.00	3.00	3.00	3.00	

Signal Operations
2 3 4 | 5 6 7 8 Phase Combination 1 NB Left EB Left * Thru Thru Right *
Peds
SB Left * Right Peds WB Left Thru Thru Right Right Peds Peds EB Right NB Right SB Right WB Right Green 35.0A 5.0A 25.0A Green Yellow/AR 3.0 Yellow/AR 3.0 3.0

Cycle Length: 74 secs Phase combination order: #1 #5 #6

	Approac	ch:							
	Mvmts	Cap	Flow	Ratio	Ratio	Delay	LOS	Delay	LOS
EB	L	971	2875	0.905	0.338	23.6	C	18.5	С
	R	1147	2573	0.767	0.446	13.4	В		
NB	TR	1411	2983	0.846	0.473	14.6	В	14.6	В
SB	L	237	1438	0.363	0.581	13.7	В	11.0	В
	T	1432	3027	0.679	0.473	10.7	В		
		Inte	ersection	Delay =	15.3 sec	c/veh Int	cersec	tion LOS	= C

Lost Time/Cycle, L = 6.0 sec Critical v/c(x) = 0.888

Center For Microcomputers In Transportation _______

Streets: (E-W) SR-2

(N-S) NB Exit Ramp

Analyst: TC

File Name: INTC05PM.HC9

Area Type: CBD

1-30-1 PM

Comment: 2005

	Eas	==== stboı	ınd	Wes	tboun	==== .d	Nor	thbo	und	Sou	ıthbou	==== .nd
	L	T	R	L	Т	R	L	T	R	L	T	R
No. Lanes	2	0	2	0	0	0	0	2	< 0	1	2	0
Volumes	810		740					976	104	82	880	
PHF or PK15	0.95		0.95					0.95	0.95	0.95	0.95	
Lane W (ft)	12.0		12.0					12.0		12.0	12.0	
Grade		0						0			0	
% Heavy Veh	13		13				j	13	13	13	13	
Parking	N	N	j				N	N		N	N	
Bus Stops	İ		0				İ		0	1		0
Con. Peds	ļ		0			0	1		0	1		0
Ped Button	(Y/N)	N					(Y/N)	N		(Y/N)) N	
Arr Type	3		3					3		3	3	
RTOR Vols			0				Ì		0	Ì		0
Lost Time	3.00		3.00					3.00	3.00	3.00	3.00	
Prop. Share												
Prop. Prot.												

_____ Signal Operations 6 7 8 Phase Combination 1 2 3 4 EB Left * NB Left Thru Right Thru Right Peds Peds SB Left WB Left Thru Thru Right Right Peds Peds EB Right |WB Right NB Right SB Right Yellow/AR 25.0A
Cvole T Green 35.0A 5.0A Yellow/AR 3.0 3.0

Cycle Length: 74 secs Phase combination order: #1 #5 #6

			Intersect	ion Perf	ormance S	Summary			
	Lane	Group:	Adj Sat	v/c	g/C			Approac	ch:
	Mvmts	Cap	Flow	Ratio	Ratio	Delay	LOS	Delay	LOS
EB	L	971	2875	0.905	0.338	23.6	С	18.5	С
	R	1147	2573	0.767	0.446	13.4	В		
NB	TR	1411	2983	0.846	0.473	14.6	В	14.6	В
SB	L	237	1438	0.363	0.581	13.7	В	11.0	В
	T	1432	3027	0.679	0.473	10.7	В		
		Inte	ersection	Delay =	15.3 se	c/veh Int	ersec	tion LOS	= C

Lost Time/Cycle, L = 6.0 sec Critical v/c(x) = 0.888

Center For Microcomputers In Transportation

University of Florida

512 Weil Hall

Gainesville, FL 32611-2083 (904) 392-0378

Streets: (E-W) SR-2 (N-S) NB Exit Ramp

Analyst: TC File Name: INTC05PM.HC9

Area Type: CBD 1-30-1 PM

Comment: 2005

Traffic and Roadway Conditions

!	Eastbound		Westbound			Nor	thbou	ind	Southbound			
	L	T	R	L	${f T}$	R	L	\mathbf{T}	R	L	${f T}$	R
No. Lanes	2	0	2	0	0	0	0	2 <	< 0	1	2	0
Volumes	810		740					976	104	82	880	
PHF or PK15	0.95		0.95					0.95	0.95	0.95	0.95	
Lane W (ft)	12.0		12.0					12.0		12.0	12.0	
Grade		0					ĺ	0			0	
% Heavy Veh	13		13					13	13	13	13	
Parking	N	N					N	N		N	N	
Bus Stops			0				Ì		0			0
Con. Peds	ĺ		0			0	1		0	ĺ		0
Ped Button	(Y/N)	N					(Y/N)	N		(Y/N) N	
Arr Type	3		3					3		3	3	
RTOR Vols	ĺ		0	ĺ			Ì		0			0
Lost Time	3.00		3.00					3.00	3.00	3.00	3.00	

Lost Time |3.00 | 3.00| | 3.00 |3.00 | 3.00

Signal Operations

							- 				
Phas EB	se Combination Left	1	2	3	4	NB	Left	5	6	7	8
	Thru				i		Thru	*			
	Right	*					Right	*			
	Peds						Peds				
WB	Left					SB	Left	*	*		
	Thru					į	Thru	*			
	Right						Right				
	Peds						Peds				
NB	Right					EB	Right		*		
SB	Right					WB	Right				•
Gree	en 25	.0A				 Gre	en 35	.0A 5	.0A		
		. 0				1	low/AR 3		. 0		
T C T .	TOW/ FAX:					1			• •		

Cycle Length: 74 secs Phase combination order: #1 #5 #6

Streets: (E-W) SR-2 (N-S) NB Exit Ramp

Analyst: TC File Name: INTC05PM.HC9

Area Type: CBD 1-30-1 PM

Comment: 2005

Volume Adjustment Worksheet

Direc- tion/ Mvt		PHF	Adj Vol	Lane Grp	Lane Grp Vol	No. Ln	Lane Util Fact	Growth Fact	Adj Grp Vol	Prop LT	Prop RT
EB											
Left	810	0.95	853	$\mathbf L$	853	2	1.030	1.000	879	1.00	0.00
Right	740	0.95	779	R	779	2	1.130	1.000	880	0.00	1.00
NB											
Thru	976	0.95	1027	TR	1136	2	1.050	1.000	1193	0.00	0.10
Right	104	0.95	109								
SB											
Left	82	0.95	86	L	86	1	1.000	1.000	86	1.00	0.00
Thru	880	0.95	926	${f T}$	926	2	1.050	1.000	972	0.00	0.00

Saturation Flow Adjustment Worksheet

	ection Grp	Ideal Sat Flow	No. Lns	f W	f HV	f G	f p	f BB	f A	f RT	f LT	Adj Sat Flow
EB												
	L	1900	2	1.00	0.88	1.00	1.00	1.00	0.90	1.00	0.95	2875
	R	1900	2	1.00	0.88	1.00	1.00	1.00	0.90	0.85	1.00	2573
NB												
	TR	1900	2	1.00	0.88	1.00	1.00	1.00	0.90	0.99	1.00	2983
SB											0.11	173
	L	1900	1	1.00	0.88	1.00	1.00	1.00	0.90	1.00	0.95	1438
	Т	1900	2	1.00	0.88	1.00	1.00	1.00	0.90	1.00	1.00	3027

Streets: (E-W) SR-2 (N-S) NB Exit Ramp

Analyst: TC File Name: INTC05PM.HC9

Area Type: CBD 1-30-1 PM

Comment: 2005

Supplemental Permitted LT Worksheet

	-
APPROACH	SB
Cycle Length, C	74
Actual Green Time for Lane Group, G	43
Effective Green Time for Lane Group, g	35
Opposing Effective Green Time, go	35
Number of Opposing Lanes, No	2
Number of Lanes in Lane Group, N	1
Adjusted Left-Turn Flow Rate, Vlt	86
Proportion of Left Turns in Lane Group, Plt	1.00
Left Turns per Cycle: LTC=Vlt*C/3600	1.77
Adjusted Opposing Flow Rate, Vo	1193
Opposing Flow per Lane, Per Cycle: Volc=VoC/3600No	12.26
Opposing Platoon Ratio, Rpo	1
Lost time per phase, tl	3
gf=Gexp(-0.882*LTC^0.717)-tl	0.00
Opposing Queue Ratio: qro=1-Rpo(go/C)	0.53
qq = Volc * qro / (.5 - Volc * (1 - qro) / go)-tl	16.33
qu=q-gq (or g-gf)	18.67
fs=(875-0.625Vo)/1000	0.13
$Pl=Plt[1+{(N-1)g/(fs*gu+4.5)}]$	1.00
E11	8.20
fmin	0.11
<pre>fm, (min=fmin; max=1.00)</pre>	0.11
flt=[fm+0.91(N-1)]/N	0.11

Streets: (E-W) SR-2 (N-S) NB Exit Ramp

Analyst: TC File Name: INTC05PM.HC9

Area Type: CBD 1-30-1 PM

Comment: 2005

Capacity Analysis Worksheet

Direction /LnGrp	Adj Flow Rate (v)	Adj Sat Flow Rate (s)	Flow Ratio (v/s)	Green Ratio (g/C)	Lane Group Capacity (c)	v/c	
EB							
L	879	2875	0.306	0.338	971	0.905	
R	880	2573	0.342	0.446	1147	0.767	*
WB							
NB							
TR	1193	2983	0.400	0.473	1411	0.845	
SB Lsec.	82	173	0.474	0.473	82	1.000	*
Lpri.	4	1438	0.003	0.108	155	0.026	
Ltot.	86				237	0.363	
T	972	3027	0.321	0.473	1432	0.679	
			Sum (v/s) critical	1 = 0.816		
Lost Time	/Cycle, L =	6.0 sec	Criti	.cal v/c(x)	= 0.888		

Level of Service Worksheet

Direction /LnGrp			ď	Adj	Group	d	Delay d 2	Grp	Grp	ву	LOS By App
									-		
EB											
${f L}$	0.905	0.338	17.8	0.850	971	16	8.5	23.	6 C	18.5	С
R	0.767	0.446	13.1	0.850	1147	16	2.2	13.	4 B		
WB											
NB											
TR	0.846	0.473	13.0	0.850	1411	16	3.5	14.	6 B	14.6	В
SB											
L	0.363	0.581	15.7	0.850	237	16	0.4	13.	7 B	11.0	В
T	0.679	0.473	11.5	0.850	1432	16	0.9	10.	7 B		
	I	nterse	ction :	Delay :	= 15.	3 sec/	veh In	terse	ction	LOS =	С

Streets: (E-W) SR-2 (N-S) NB Exit Ramp

Analyst: TC File Name: INTC05PM.HC9

Area Type: CBD 1-30-1 PM

Comment: 2005

Supplemental Uniform Delay Worksheet

Approach	Southbound
Adj. LT Vol (v)	86
v/c ratio (x)	0.36
Primary phase effective green	8.00
gq from Supplemental LT Worksheet	16.33
gu from Supplemental LT Worksheet	18.67
Red time (r)	31.00
Arrivals qa = $v/(3600(max(x,1)))$	0.02
Primary Ph. Departures Sp=s/3600	0.40
Secondary Ph. Departures Ss=S(Gq+Gu)/(Gu*3600)	0.09
Xperm	0.94
XProt	N/A
Case	4
Queue at begining of green arrow (Qa)	0.00
Queue at beginning of unsaturated green (Qu)	1.13
Residual queue (Qr)	0.00
Uniform Delay	15.65

HCM: SIGNALIZED INTERSECTION SUMMARY Version 2.4g 03-07-2001 Center For Microcomputers In Transportation

Streets: (E-W) SR-2 (N-S) NB Exit Ramp
Analyst: TC File Name: INTC25AM.HC9

Area Type: CBD 1-30-1 AM

Comment: 2025

	Eastbound			We	stbou	nd	No	rthbo	ınd	Sou	ıthbou	ınd
	L	\mathbf{T}	R	L	T	R	L	\mathbf{T}	R	L	${f T}$	R
No. Lanes	2	0	2	0	0	0	0	2 .	< 1	1	2	0
Volumes	810		860					2750	190	220	1110	
Lane W (ft)	12.0		12.0					12.0	12.0	12.0	12.0	
RTOR Vols			0				1		100			0
Lost Time	3.00		3.00				1	3.00	3.00	3.00	3.00	

Lost Time | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00

			STGI	iai ope	erat	TOUE	i .				
Phas	se Combinatio	n 1	2	3	4			5	6	7	8
EΒ	Left	*			Į	NB	Left				
	Thru						Thru	*			
	Right	*			ĺ		Right	*			
	Peds				ĺ		Peds				
WB	Left				ĺ	SB	Left	*	*		
	Thru				j		Thru	*			
	Right				İ		Right				
	Peds				ĺ		Peds				
NB	Right					EB	Right		*		
SB	Right				į	WB	Right				
Gree	en 2	5.0A			į	Gree	en	40.0A	6.0A		
Yel	low/AR	3.0			į	Yel	low/AR	3.0	3.0		
		M secs	Dhase	combi	nati	on o	order:	#1 #5	#6		

Cycle Length: 80 secs Phase combination order: #1 #5 #6

	Lane Mvmts	Group: Cap	Intersect: Adj Sat Flow	ion Perfo v/c Ratio	ormance S g/C Ratio	Summary Delav	LOS	Approa Delay	ch: LOS
EB	L	898	2875	0.978	0.313	36.2	D	30.0	D
	R	1094	2573	0.936	0.425	24.6	С		
NB	TR	1514	3027	2.009	0.500	*	*	*	*
	R	643	1286	0.148	0.500	7.0	В		
SB	L	237	1438	0.979	0.613	60.8	F	20.8	C
	T	1514	3027	0.810	0.500	13.3	В		
				D - 7	u (/	_1_\ T		TOC	4

Intersection Delay = * (sec/veh) Intersection LOS = * (g/C)*(V/c) is greater than one. Calculation of D1 is infeasible.

HCM: SIGNALIZED INTERSECTION SUMMARY Version 2.4g 03-07-2001 Center For Microcomputers In Transportation

Streets: (E-W) SR-2

(N-S) NB Exit Ramp

Analyst: TC Area Type: CBD File Name: INTC25AM.HC9

1-30-1 AM

Comment: 2025

	Eas	 stboı	ind	Wes	tboun	a	Nor	thbou	ind	Sou	thbou	nd
	L	T	R	L	T	R	L	${f T}$	R	L	T	R
No. Lanes	2	0	2	0	0	0	0	2 .	< 1	1	2	0
Volumes	810		860					2750	190	220	1110	
PHF or PK15	0.95		0.95					0.95	0.95	0.95	0.95	
Lane W (ft)	12.0		12.0					12.0	12.0	12.0	12.0	
Grade		0						0			0	
% Heavy Veh	13		13			!		13	13	13	13	
Parking	N	N					N	N		N	N	
Bus Stops			0						0			0
Con. Peds			0			0			0			0
Ped Button	(Y/N)	N					(X/N)	N		(Y/N)	N	
Arr Type	3		3					3	3	3	3	
RTOR Vols			0				}		100			0
Lost Time	3.00		3.00					3.00	3.00	3.00	3.00	
Prop. Share									0			
Prop. Prot.							1			[

			Sig	nal O	perat	cion	s				
Pha	se Combinatio	on 1	2	3	4	İ		5	6	7	8
EB	Left	*				NB	Left				
	Thru					ĺ	Thru	*			
	Right	*					Right	*			
	Peds						Peds				
WB	Left					SB	Left	*	*		
	Thru						Thru	*			
	Right						Right				
	Peds						Peds				
NB	Right					EB	Right		*		
SB	Right					WB	Right				
Gre	en	25.0A				Gre	en 40	0.0A	6.0A		
Yel	low/AR	3.0				Yel	low/AR 3	.0	3.0		
Сус	le Length:	80 secs	Phase	e comb	inat	ion	order: #	1 #5	#6		

									
	Lane Mvmts	Group: Cap	Intersect Adj Sat Flow	ion Perfo v/c Ratio	ormance s g/C Ratio	Summary Delay	LOS	Approac Delay	ch: LOS
EB	L	898	2875	0.978	0.313	36.2	D	30.0	D
	R	1094	2573	0.936	0.425	24.6	С		
NB	TR	1514	3027	2.009	0.500	*	*	*	*
	R	643	1286	0.148	0.500	7.0	В		
SB	L	237	1438	0.979	0.613	60.8	F	20.8	C
	T	1514	3027	0.810	0.500	13.3	В		
		Tnte	ersection	Delav = 3	* (sec/v	eh) Int	ersec	tion LOS	= *

Intersection Delay = * (sec/veh) (g/C)*(V/c) is greater than one. Calculation of D1 is infeasible. _____

Center For Microcomputers In Transportation

University of Florida

512 Weil Hall

Gainesville, FL 32611-2083 (904) 392-0378

Streets: (E-W) SR-2 (N-S) NB Exit Ramp

Analyst: TC File Name: INTC25AM.HC9

Area Type: CBD 1-30-1 AM

Comment: 2025

Traffic and Roadway Conditions

	Eas	stboi	ind	Wes	stbou	nd	Noı	rthbou	ınd	Sou	ıthbou	.nd
	L	T	R	L	Т	R	L	T	R	L	T	R
No. Lanes	2	0	2	0	0	0	0	2 <	: 1	1	2	0
Volumes	810		860					2750	190	220	1110	
PHF or PK15	0.95		0.95					0.95	0.95	0.95	0.95	
Lane W (ft)	12.0		12.0					12.0	12.0	12.0	12.0	
Grade		0	ĺ					0			0	
% Heavy Veh	13		13					13	13	13	13	
Parking	N	N					N	N		N	N	
Bus Stops	1		0				[0			0
Con. Peds	ĺ		0			0			0			0
Ped Button	(Y/N)	N					(Y/N) N		(Y/N) N	
Arr Type	3		3				1	3	3	3	3	
RTOR Vols	İ		0						100			0
Lost Time	3.00		3.00					3.00	3.00	3.00	3.00	

Signal Operations

Pha EB	se Combination Left	1 *	2	3	4	 NB	Left	5	6	7	8
	Thru						Thru	*			
	Right	*					Right	*			
	Peds					-	Peds				
7.77	T ~ £ +					SB	Left	*	*		
WB	Left Thru					155	Thru	*			
	Right					İ	Right				
	Peds						Peds				
						ĺ					
NB	Right					EB	Right		*		
SB	Right					WB	Right				
Gre	25	.0A				 Gre	en 40	0.0A	6.0A		
		.0				ı	low/AR 3		3.0		
101	. 10 11/ 111					1					

Cycle Length: 80 secs Phase combination order: #1 #5 #6

Streets: (E-W) SR-2 (N-S) NB Exit Ramp

Analyst: TC File Name: INTC25AM.HC9

Area Type: CBD 1-30-1 AM

Comment: 2025

Volume Adjustment Worksheet

Mvt Jol	PHF	Adj Vol	Lane Grp	Lane Grp Vol	No. Ln	Lane Util Fact	Growth Fact	Adj Grp Vol	Prop LT	Prop RT
810	0.95	853	\mathbf{L}	853	2	1.030	1.000	879	1.00	0.00
860	0.95	905	R	905	2	1.130	1.000	1023	0.00	1.00
2750	0.95	2895	TR	2895	2	1.050	1.000	3040	0.00	0.00
190	0.95	95	R	95	1	1.000	1.000	95	0.00	1.00
220	0.95	232	L	232	1	1.000	1.000	232	1.00	0.00
1110	0.95	1168	Т	1168	2	1.050	1.000	1226	0.00	0.00
	701 810 860 2750 190	701 PHF 810 0.95 860 0.95 2750 0.95 190 0.95 220 0.95	701 PHF V01 810 0.95 853 860 0.95 905 2750 0.95 2895 190 0.95 95 220 0.95 232	Vol PHF Vol Grp 810 0.95 853 L 860 0.95 905 R 2750 0.95 2895 TR 190 0.95 95 R	Avt Adj Lane Grp Vol PHF Vol Grp Vol 810 0.95 853 L 853 860 0.95 905 R 905 2750 0.95 2895 TR 2895 190 0.95 95 R 95 220 0.95 232 L 232	Avt Adj Lane Grp No. Vol PHF Vol Grp Vol Ln 810 0.95 853 L 853 2 860 0.95 905 R 905 2 2750 0.95 2895 TR 2895 2 190 0.95 95 R 95 1 220 0.95 232 L 232 1	Avt Adj Lane Grp No. Util Vol PHF Vol Grp Vol Ln Fact 810 0.95 853 L 853 2 1.030 860 0.95 905 R 905 2 1.130 2750 0.95 2895 TR 2895 2 1.050 190 0.95 95 R 95 1 1.000 220 0.95 232 L 232 1 1.000	Adj Lane Grp No. Util Growth Vol PHF Vol Grp Vol Ln Fact Fact 810 0.95 853 L 853 2 1.030 1.000 860 0.95 905 R 905 2 1.130 1.000 2750 0.95 2895 TR 2895 2 1.050 1.000 190 0.95 95 R 95 1 1.000 1.000 220 0.95 232 L 232 1 1.000 1.000	Avt Adj Lane Grp No. Util Growth Grp Vol PHF Vol Grp Vol Ln Fact Fact Vol 810 0.95 853 L 853 2 1.030 1.000 879 860 0.95 905 R 905 2 1.130 1.000 1023 2750 0.95 2895 TR 2895 2 1.050 1.000 3040 190 0.95 95 R 95 1 1.000 1.000 95 220 0.95 232 L 232 1 1.000 1.000 232	Mvt Adj Lane Grp No. Util Growth Grp Prop Vol PHF Vol Grp Vol Ln Fact Fact Vol LT 810 0.95 853 L 853 2 1.030 1.000 879 1.00 860 0.95 905 R 905 2 1.130 1.000 1023 0.00 2750 0.95 2895 TR 2895 2 1.050 1.000 3040 0.00 190 0.95 95 R 95 1 1.000 1.000 95 0.00

Saturation Flow Adjustment Worksheet

Direction /LnGrp	Ideal Sat Flow	No. Lns	f W	f HV	f G	f p	f BB	f A	f RT	f LT	Adj Sat Flow
EB											
L	1900	2	1.00	0.88	1.00	1.00	1.00	0.90	1.00	0.95	2875
R	1900	2	1.00	0.88	1.00	1.00	1.00	0.90	0.85	1.00	2573
NB											
TR	1900	2	1.00	0.88	1.00	1.00	1.00	0.90	1.00	1.00	3027
R	1900	1	1.00	0.88	1.00	1.00	1.00	0.90	0.85	1.00	1286
SB										0.10	151
L	1900	1	1.00	0.88	1.00	1.00	1.00	0.90	1.00	0.95	1438
Т	1900	2	1.00	0.88	1.00	1.00	1.00	0.90	1.00	1.00	3027

Streets: (E-W) SR-2 (N-S) NB Exit Ramp

Analyst: TC File Name: INTC25AM.HC9

Area Type: CBD 1-30-1 AM

Comment: 2025

Supplemental Permitted LT Worksheet

APPROACH	SB
Cycle Length, C	80
Actual Green Time for Lane Group, G	49
Effective Green Time for Lane Group, g	40
Opposing Effective Green Time, go	40
Number of Opposing Lanes, No	2
Number of Lanes in Lane Group, N	1
Adjusted Left-Turn Flow Rate, Vlt	232
Proportion of Left Turns in Lane Group, Plt	1.00
Left Turns per Cycle: LTC=Vlt*C/3600	5.16
Adjusted Opposing Flow Rate, Vo	3040
Opposing Flow per Lane, Per Cycle: Volc=VoC/3600No	33.78
Opposing Platoon Ratio, Rpo	1
Lost time per phase, tl	3
gf=Gexp(-0.882*LTC^0.717)-tl	0.00
Opposing Queue Ratio: qro=1-Rpo(go/C)	0.50
gq = Volc * qro / (.5 - Volc * (1 - qro) / go)-tl	40.00
gu=g-gq (or g-gf)	0.00
fs=(875-0.625Vo)/1000	0.00
Pl=Plt[1+{(N-1)g/(fs*gu+4.5)}]	1.00
El1	8.20
fmin	0.10
fm, (min=fmin; max=1.00)	0.10
flt = [fm+0.91(N-1)]/N	0.10

(N-S) NB Exit Ramp Streets: (E-W) SR-2

Analyst: TC File Name: INTC25AM.HC9

1-30-1 AM Area Type: CBD

Comment: 2025

Capacity Analysis Worksheet

	rection nGrp	Adj Flow Rate (v)	Adj Sat Flow Rate (s)		Green Ratio		v/c	
				-				
EΒ								
	L	879	2875	0.306	0.313	898	0.979	*
	R	1023	2573	0.398	0.425	1094	0.935	
WB								
NB								
1410	TR	3040	3027	1.004	0.500	1514	2.008	*
	R	95	1286	0.074	0.500	643	0.148	
SB	Lsec.	76	151	0.503	0.500	76	1.000	
כנט	Lpri.	156	1438	0.108	0.112	162	0.963	*
	Ltot.	232	1130	0.100	• • • • • • • • • • • • • • • • • • • •	237	0.979	
			2027	0 405	0.500	1514	0.810	
	T	1226	3027				0.610	
				Sum	(v/s) critical	1 = 1.419		
Lo	st Time	/Cycle, L =	6.0 sec	Criti	.cal v/c(x)	= 1.534		

Level of Service Worksheet

D110001011 1/0 3/0 4 4 1-1-1	LOS By App
EB	
L 0.978 0.313 20.7 0.850 898 16 18.6 36.2 D 30.0 I	D
R 0.936 0.425 16.7 0.850 1094 16 10.5 24.6 C	
WB	
NB	
TR 2.009 0.500 * 0.850 1514 16 * * * * *	*
R 0.148 0.500 8.2 0.850 643 16 0.0 7.0 B	
SB	
L 0.979 0.613 25.3 0.850 237 16 39.3 60.8 F 20.8 (C
T 0.810 0.500 12.8 0.850 1514 16 2.4 13.3 B	
<pre>Intersection Delay = * (sec/veh) Intersection LOS = '</pre>	
st Delay and LOS not meaningful when any v/c is greater than 1.2 or $1/2$	PHF

Streets: (E-W) SR-2 (N-S) NB Exit Ramp

Analyst: TC File Name: INTC25AM.HC9

Area Type: CBD 1-30-1 AM

Comment: 2025

Supplemental Uniform Delay Worksheet

Approach	Southbound
Adj. LT Vol (v)	232
v/c ratio (x)	0.98
Primary phase effective green	9.00
gg from Supplemental LT Worksheet	36.00
gu from Supplemental LT Worksheet	4.00
Red time (r)	31.00
Arrivals qa = $v/(3600(max(x,1)))$	0.06
Primary Ph. Departures Sp=s/3600	0.40
Secondary Ph. Departures Ss=S(Gq+Gu)/(Gu*3600)	0.42
Xperm	2.73
XProt	N/A
Case	5
Queue at begining of green arrow (Qa)	2.90
Queue at beginning of unsaturated green (Qu)	4.32
Residual queue (Qr)	0.00
Uniform Delay	25.30

Center For Microcomputers In Transportation

Streets: (E-W) SR-2 (N-S) NB Exit Ramp

Analyst: TC File Name: INTC25PM.HC9 Area Type: CBD 1-30-1 AM

Comment: 2025

	Ea	stbou	nd	Wes	tbou	nd	No	rthbou	and	Sou	ıthbou	.nd
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	2	0	2	0	0	0	0	2 .	< 1	1	2	0
Volumes	810		860					2750	190	220	1110	
Lane W (ft)	12.0		12.0					12.0	12.0	12.0	12.0	
RTOR Vols			0						100			0
Lost Time	3.00		3.00					3.00	3.00	3.00	3.00	

Lost Time |3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00

	Signal Operations											
Pha	se Combinatio	n 1	2	3	4			5	6	7	8	
EB	Left	*				NB	Left					
	Thru						Thru	*				
	Right	*				İ	Right	*				
	Peds					İ	Peds					
WB	Left					SB	Left	*	*			
	Thru					İ	Thru	*				
	Right					ĺ	Right					
	Peds					İ	Peds					
NB	Right					EB	Right		*			
SB	Right					WB	Right					
Gre	_	5.0A				Gre	_	40.0A	6.0A			
		3.0				Yel	low/AR	3.0	3.0			
		0 secs	Phase	con	nbinat	•	order:		#6			

	Lane Mvmts	Group: Cap	Intersecti Adj Sat Flow	ion Perfo v/c Ratio	ormance : g/C Ratio	Summary Delay	LOS	Approac Delay	ch: LOS
EB	L	898	2875	0.978	0.313	36.2	D	30.0	D
	R	1094	2573	0.936	0.425	24.6	С		
NB	TR	1514	3027	2.009	0.500	*	*	*	*
	R	643	1286	0.148	0.500	7.0	В		
SB	L	237	1438	0.979	0.613	60.8	F	20.8	С
	Т	1514	3027	0.810	0.500	13.3	В		

Intersection Delay = * (sec/veh) Intersection LOS = * (g/C)*(V/c) is greater than one. Calculation of D1 is infeasible. _____ HCM: SIGNALIZED INTERSECTION SUMMARY Version 2.4g 03-07-2001 Center For Microcomputers In Transportation

Streets: (E-W) SR-2

(N-S) NB Exit Ramp

Analyst: TC

File Name: INTC25PM.HC9

Area Type: CBD 1-30-1 AM

Comment: 2025

	Eas	stbou	ınd	Wes	stbou	nd	No	rthbou	ınd	Sou	ıthbou	.nd
	L	${f T}$	R	L	\mathbf{T}	R	L	${f T}$	R	L	${f T}$	R
No. Lanes	2	0	2	0	0	0	0	2 <	: 1	1	2	0
Volumes	810		860					2750	190	220	1110	
PHF or PK15	0.95		0.95					0.95	0.95	0.95	0.95	
Lane W (ft)	12.0		12.0				1	12.0	12.0	12.0	12.0	
Grade		0						0			0	
% Heavy Veh	13		13					13	13	13	13	
Parking	N	N					N	N		N	N	
Bus Stops	j		0						0	1		0
Con. Peds	İ		0			0	Ì		0			0
Ped Button	(Y/N)	N					Y/N) N		(Y/N) N	
Arr Type	3		3					3	3	3	3	
RTOR Vols	ĺ		0						100			0
Lost Time	3.00		3.00					3.00	3.00	3.00	3.00	
Prop. Share	ĺ			ĺ					0			
Prop. Prot.				1								

	Signal Operations										
Pha	se Combinatio	n 1	2	3	4		5	6	7	8	
EB	Left	*			NB	Left					
	Thru					Thru	*				
	Right	*				Right	*				
	Peds				ĺ	Peds					
WB	Left				SB	Left	*	*			
	Thru				į	Thru	*				
	Right				İ	Right					
	Peds					Peds					
NB	Right				EB	Right		*			
SB	Right				WB	Right					
Gre	en 2	25.0A			Gre	en 40	.0A	6.0A			
Yel	low/AR	3.0			Yel	low/AR 3	. 0	3.0			
		30 secs	Phase	combi:	nation	order: #	:1 #5	#6			

							_		
	Lane	Group:	Intersect Adj Sat	ion Perfo v/c	rmance a	Summary		Approac	ch:
	Mvmts	Cap	Flow	Ratio	Ratio	Delay	LOS	Delay	LOS
EB	L	898	2875	0.978	0.313	36.2	D	30.0	D
	R	1094	2573	0.936	0.425	24.6	С		
NB	TR	1514	3027	2.009	0.500	*	*	*	*
	R	643	1286	0.148	0.500	7.0	В		
SB	L	237	1438	0.979	0.613	60.8	F	20.8	С
	${f T}$	1514	3027	0.810	0.500	13.3	В		
		Inte	ersection	Delay = *	(sec/v	eh) Int	cersec	tion LOS	= *
						C D1 1		1 1- 7 -	

(g/C)*(V/c) is greater than one. Calculation of D1 is infeasible.

Center For Microcomputers In Transportation

University of Florida

512 Weil Hall

Gainesville, FL 32611-2083 (904) 392-0378

Streets: (E-W) SR-2 (N-S) NB Exit Ramp

Analyst: TC File Name: INTC25PM.HC9

Area Type: CBD 1-30-1 AM

Comment: 2025

Traffic and Roadway Conditions

	Eastbound			Wes	tbou	nd	Nor	thbou	ınd	Sou	nd	
	L	\mathbf{T}	R	L	T	R	L	${f T}$	R	L	T	R
No. Lanes	2	0	2	0	0	0	0	2 <	< 1	1	2	0
Volumes	810		860					2750	190	220	1110	
PHF or PK15	0.95		0.95					0.95	0.95	0.95	0.95	
Lane W (ft)	12.0		12.0					12.0	12.0	12.0	12.0	
Grade		0						0			0	
% Heavy Veh	13		13					13	13	13	13	
Parking	N	N					N	N		N	N	
Bus Stops			0						0			0
Con. Peds			0			0			0			0
Ped Button	(Y/N)	N					(Y/N)	N		(Y/N)) N	
Arr Type	3		3				İ	3	3	3	3	
RTOR Vols			0						100			0
Lost Time	3.00		3.00					3.00	3.00	3.00	3.00	

Signal Operations

P E		. 1	2	3	4	 NB	Left	5	6	7	8
	Thru						Thru	*			
	Right	*					Right	*			
	Peds						Peds				
W	B Left					SB	Left	*	*		
	Thru						Thru	*			
	Right						Right				
	Peds						Peds				
N	B Right					EB	Right		*		
	B Right					WB	Right				
	J					İ	3				
G	reen 25	.0A				Gre	en 40	A0.0	6.0A		
Y	Cellow/AR 3	. 0				Yel	low/AR	3.0	3.0		

Cycle Length: 80 secs Phase combination order: #1 #5 #6

Character (E.W.) CD 2

Streets: (E-W) SR-2 (N-S) NB Exit Ramp

Analyst: TC File Name: INTC25PM.HC9

Area Type: CBD 1-30-1 AM

Comment: 2025

Volume Adjustment Worksheet

Direc-	-				Lane		Lane		Adj		
tion/	Mvt		Adj	Lane	Grp	No.	Util	Growth	Grp	Prop	Prop
Mvt	Vol	PHF	Vol	Grp	Vol	Ln	Fact	Fact	Vol	LT	RT
EB											
Left	810	0.95	853	L	853	2	1.030	1.000	879	1.00	0.00
Right	860	0.95	905	R	905	2	1.130	1.000	1023	0.00	1.00
NB											
Thru	2750	0.95	2895	TR	2895	2	1.050	1.000	3040	0.00	0.00
Right	190	0.95	95	R	95	1	1.000	1.000	95	0.00	1.00
SB											
Left	220	0.95	232	L	232	1	1.000	1.000	232	1.00	0.00
Thru	1110	0.95	1168	T	1168	2	1.050	1.000	1226	0.00	0.00

Saturation Flow Adjustment Worksheet

	Ideal										Adj
Direction /LnGrp	Sat Flow	No. Lns	f W	f HV	f G	f p	f BB	f A	f RT	f LT	Sat Flow
EB											
L	1900	2	1.00	0.88	1.00	1.00	1.00	0.90	1.00	0.95	2875
R	1900	2	1.00	0.88	1.00	1.00	1.00	0.90	0.85	1.00	2573
NB											
TR	1900	2	1.00	0.88	1.00	1.00	1.00	0.90	1.00	1.00	3027
R	1900	1	1.00	0.88	1.00	1.00	1.00	0.90	0.85	1.00	1286
SB										0.10	151
L	1900	1	1.00	0.88	1.00	1.00	1.00	0.90	1.00	0.95	1438
T	1900	2	1.00	0.88	1.00	1.00	1.00	0.90	1.00	1.00	3027

HCS: Signalized Intersection Version 2.4g 03-07-2001 3

Streets: (E-W) SR-2 (N-S) NB Exit Ramp

Analyst: TC File Name: INTC25PM.HC9

Area Type: CBD 1-30-1 AM

Comment: 2025

Supplemental Permitted LT Worksheet

APPROACH	SB
Cycle Length, C	80
Actual Green Time for Lane Group, G	49
Effective Green Time for Lane Group, g	40
Opposing Effective Green Time, go	40
Number of Opposing Lanes, No	2
Number of Lanes in Lane Group, N	1
Adjusted Left-Turn Flow Rate, Vlt	232
Proportion of Left Turns in Lane Group, Plt	1.00
Left Turns per Cycle: LTC=Vlt*C/3600	5.16
Adjusted Opposing Flow Rate, Vo	3040
Opposing Flow per Lane, Per Cycle: Volc=VoC/3600No	33.78
Opposing Platoon Ratio, Rpo	1
Lost time per phase, tl	3
gf=Gexp(-0.882*LTC^0.717)-tl	0.00
Opposing Queue Ratio: qro=1-Rpo(go/C)	0.50
gq = Volc * qro / (.5 - Volc * (1 - qro) / go)-tl	40.00
gu=g-gq (or g-gf)	0.00
fs=(875-0.625Vo)/1000	0.00
$Pl=Plt[1+{(N-1)g/(fs*gu+4.5)}]$	1.00
El1	8.20
fmin	0.10
<pre>fm, (min=fmin; max=1.00)</pre>	0.10
flt=[fm+0.91(N-1)]/N	0.10

HCS: Signalized Intersection Version 2.4g 03-07-2001 4 _____

(N-S) NB Exit Ramp Streets: (E-W) SR-2

Analyst: TC File Name: INTC25PM.HC9

Area Type: CBD 1-30-1 AM

Comment: 2025

Capacity Analysis Worksheet

		Adj Flow Rate (v)	Adj Sat Flow Rate (s)	Flow Ratio (v/s)	Green Ratio	Lane Group Capacity (c)	v/c Ratio	
 EB								
	L	879	2875	0.306	0.313	898	0.979	*
	R	1023	2573	0.398	0.425	1094	0.935	
WB								
NB								
	TR	3040	3027	1.004	0.500	1514	2.008	*
	R	95	1286	0.074	0.500	643	0.148	
SB	Lsec.	76	151	0.503	0.500	76	1.000	
	Lpri.	156	1438	0.108	0.112	162	0.963	*
	Ltot.	232				237	0.979	
	Т	1226	3027	0.405	0.500	1514	0.810	
				Sum (v/s) critical	= 1.419		
Los	t Time	/Cycle, L =	6.0 sec	Criti	cal v/c(x)	= 1.534		

Level of Service Worksheet

	ction rp		g/C Ratio	d -	Adj	Group		d	Lane Grp Del	Grp	Delay By App	LOS By App
EB												
L	ı	0.978	3 0.313	20.7	0.850	898	16	18.6	36.3	2 D	30.0	D
R	_	0.936	0.425	16.7	0.850	1094	16	10.5	24.	6 C		
WB												
NB												
T	R.	2.009	9 0.500	*	0.850	1514	16	*	*	*	*	*
R	2	0.148	3 0.500	8.2	0.850	643	16	0.0	7.	0 B		
SB												
L	1	0.97	9 0.613	25.3	0.850	237	16	39.3	60.	8 F	20.8	C
Т	7	0.81	0.500	12.8	0.850	1514	16	2.4	13.	3 B		
			Interse	ction	Delay	= * (s	ec/veh) In	terse	ction	LOS =	*
* De	elay a	nd LOS	not me	aningf	ul whe	n any	v/c is	great	er th	an 1.	2 or 1	/PHF
T	7	0.81	Interse	12.8 ction	0.850 Delay	1514 = * (s	16 ec/veh	2.4) In	13. terse	3 B ction	LOS =	*

HCS: Signalized Intersection Version 2.4g 03-07-2001 5

Streets: (E-W) SR-2 (N-S) NB Exit Ramp

Analyst: TC File Name: INTC25PM.HC9

Area Type: CBD 1-30-1 AM

Comment: 2025

Supplemental Uniform Delay Worksheet

Approach	Southbound
Adj. LT Vol (v)	232
v/c ratio (x)	0.98
Primary phase effective green	9.00
gq from Supplemental LT Worksheet	36.00
gu from Supplemental LT Worksheet	4.00
Red time (r)	31.00
Arrivals qa = $v/(3600(max(x,1)))$	0.06
Primary Ph. Departures Sp=s/3600	0.40
Secondary Ph. Departures Ss=S(Gq+Gu)/(Gu*3600)	0.42
Xperm	2.73
XProt	N/A
Case	5
Queue at begining of green arrow (Qa)	2.90
Queue at beginning of unsaturated green (Qu)	4.32
Residual queue (Qr)	0.00
Uniform Delay	25.30

APPENDIX D

CAPACITY ANALYSIS: RECOMMENDED IMPROVEMENTS



Page 1

Center For Microcomputers In Transportation

University of Florida

512 Weil Hall

Gainesville, FL 32611-2083

Ph: (904) 392-0378

File Name 1AM2025.HC3

Location..... 1 2025

From/To..... tc
Analyst.... tc
Time of Analysis.... am

Date of Analysis.... 01/17/01

Other Information....

A. Geometrics and Traffic Input Data	Dir 1	Dir 2
Traffic Volume (vph)	9160	6170
Peak-Hour Factor or Peak 15-min Volume	0.95	0.95
Percentage of Trucks	17.0	17.0
Percentage of Recreational Vehicles	0.0	0.0
Number of Lanes	5	4
Free-Flow Speed (mph)	65.0	65.0
Lane Width (ft)	12.0	12.0
Obstructions-No (0), One (1) or Both (2)	0	0
Distance from Pavement Edge (ft)		
Driver Population Factor	1.00	1.00

B. Adjustment Factors

			E	E	F	F	F
	Terrain	n Type	T	R	HV	W	P
Dir	1	LEVEL	1.50		0.922	1.00	1.00
Dir	2		1.50		0.922	1.00	1.00

C. Level of Service Results	Dir 1	Dir 2
Maximum Service Flow (MSF) (pcphpl)	2092	1762
Level of Service (LOS)	E	D
Projected Speed at Flow Rate (mph)	58.4	63.3
Density (pc/mi/ln)	35.82	27.82
Density (veh/mi/ln)	33.01	25.64
Speed of prevailing traffic (mph)	58.4	63.3

HCS: Freeways	Release 2.1g	Page 1
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University of Florida

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Gainesville, FL 32611-2083

Ph: (904) 392-0378

File Name 1PM2025.HC3

Location..... 1 2025

From/To...... tc
Analyst..... tc
Time of Analysis.... am

Date of Analysis.... 01/17/01

Other Information....

A. Geometrics and Traffic Input Data	Dir 1	Dir 2
Traffic Volume (vph) Peak-Hour Factor or Peak 15-min Volume Percentage of Trucks	9160 0.95 17.0	6170 0.95 17.0
Percentage of Recreational Vehicles Number of Lanes	0.0	0.0
Free-Flow Speed (mph) Lane Width (ft)	65.0 12.0	65.0 12.0
Obstructions-No (0), One (1) or Both (2) Distance from Pavement Edge (ft)	0	0
Driver Population Factor	1.00	1.00

B. Adjustment Factors

			E	E	F	F	F
	Terrai	n Type	T	R	HV	W	P
Dir	1	LEVEL	1.50		0.922	1.00	1.00
Dir	2		1.50		0.922	1.00	1.00

C. Level of Service Results	Dir 1	Dir 2
Maximum Service Flow (MSF) (pcphpl) Level of Service (LOS) Projected Speed at Flow Rate (mph) Density (pc/mi/ln) Density (veh/mi/ln) Speed of prevailing traffic (mph)	* 2615 *F	1409 C 65.0 21.68 19.98 65.0

^{*} Speed and density are highly variable for LOS F

^{*} Maximum Service Flow must not be greater than 2300 for 4 lanes.

HCS: Freeways	Release 2.1g	Page 1
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Ph: (904) 392-0378

File Name 5AM2025.HC3

Location..... 5 2025

From/To...... tc
Analyst..... tc
Time of Analysis.... am

Date of Analysis.... 01/17/01

Other Information....

A. Geometrics and Traffic Input Data	Dir 1	Dir 2
Traffic Volume (vph)	4910	7050
Peak-Hour Factor or Peak 15-min Volume	0.95	0.95
Percentage of Trucks	17.0	17.0
Percentage of Recreational Vehicles	0.0	0.0
Number of Lanes	3	3
Free-Flow Speed (mph)	65.0	65.0
Lane Width (ft)	12.0	12.0
Obstructions-No (0), One (1) or Both (2)	0	0
Distance from Pavement Edge (ft)		
Driver Population Factor	1.00	1.00

B. Adjustment Factors

			E	\mathbf{E}	F	F	F
	Terrair	n Type	Т	R	HV	W	P
Dir	1	LEVEL	1.50		0.922	1.00	1.00
Dir	2		1.50		0.922	1.00	1.00

C. Level of Service Results	Dir 1	Dir 2
Maximum Service Flow (MSF) (pcphpl)	1869	* 2684
Level of Service (LOS)	D	*F
Projected Speed at Flow Rate (mph)	62.2	
Density (pc/mi/ln)	30.04	
Density (veh/mi/ln)	27.69	
Speed of prevailing traffic (mph)	62.2	

^{*} Speed and density are highly variable for LOS F

^{*} Maximum Service Flow must not be greater than 2300 for 3 lanes.

TICD. LICCMAND MCICABC 2:19	HCS:	Freeway	s Release	2.1q
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Page 1 ______

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Ph: (904) 392-0378

File Name 1AM2005.HC3

Location..... 1 2005

From/To.....

Time of Analysis.... am

Date of Analysis.... 01/17/01

Other Information....

Dir 1	Dir 2
5744	3846 0.95
17.0	17.0
0.0 5	0.0 4
65.0	65.0
12.0	12.0 0
1 00	1.00
	5744 0.95 17.0 0.0 5 65.0

B. Adjustment Factors

			E	E	F	F	F
	Terrain	n Type	T	R	HV	W	P
Dir	1	LEVEL	1.50		0.922	1.00	1.00
Dir	2		1.50		0.922	1.00	1.00

C. Level of Service Results	Dir 1	Dir 2
Maximum Service Flow (MSF) (pcphpl)	1312	1098
Level of Service (LOS)	В	C
Projected Speed at Flow Rate (mph)	65.0	65.0
Density (pc/mi/ln)	20.18	16.89
Density (veh/mi/ln)	18.60	15.57
Speed of prevailing traffic (mph)	65.0	65.0

HCS:	Freeways	Release	2.1g	
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Ph: (904) 392-0378

File Name 5AM2005.HC3

Location..... 5 2005

From/To..... tc
Analyst.... tc
Time of Analysis.... am

Date of Analysis.... 01/17/01

Other Information....

A. Geometrics and Traffic Input Data	Dir 1	Dir 2
Traffic Volume (vph) Peak-Hour Factor or Peak 15-min Volume Percentage of Trucks	3070 0.95 17.0	4380 0.95 17.0
Percentage of Recreational Vehicles Number of Lanes	0.0	0.0
Free-Flow Speed (mph)	65.0	65.0
Lane Width (ft) Obstructions-No (0), One (1) or Both (2)	12.0 0	12.0 0
Distance from Pavement Edge (ft) Driver Population Factor	1.00	1.00

B. Adjustment Factors

			E	E	F	F	F
	Terrain	n Type	T	R	HV	W	P
Dir	1	LEVEL	1.50		0.922	1.00	1.00
Dir	2		1.50		0.922	1.00	1.00

C. Level of Service Results	Dir 1	Dir 2
Maximum Service Flow (MSF) (pcphpl)	1169	1667
Level of Service (LOS)	C	D
Projected Speed at Flow Rate (mph)	65.0	64.1
Density (pc/mi/ln)	17.98	26.00
Density (veh/mi/ln)	16.58	23.96
Speed of prevailing traffic (mph)	65.0	64.1



HCS: Ramps	Release 2.1g		Page 1
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Other Information.....

A. Ramp Configuration Input Data

		Analysis	Upstream	
	Freeway	Ramp	Ramp	
Traffic Volume	9160	2470	360	
Peak-Hour Factor	0.95	0.95	0.95	
Percentage HV's	11.0	11.0	11.0	
Percentage RV's	0.0	0.0	0.0	
Number of Lanes	4	1		
Lane Width (ft)	12.0	12.0	12.0	
Free-flow Speed (mph)	65	45		
Obstructions	0	0	2	
Distance from Edge (ft)			0.0	
Type of Ramp		OFF	ON	

Analysis ramp is a right-hand ramp. Length of deceleration lane is 2000 ft. Distance to upstream ramp is 2200 ft.

HCS: Ramps	Release 2.1g		Page 2
File Name .		2DPM2025.HC5	======

B. Adjustment Factors

		E	E	F	F	F
	Terrain Type	T	R	HV	W	P
Freeway	Z LEVEL	1.50		0.948	1.00	1.00
Ramp		1.50		0.948	1.00	1.00
Upstrm		1.50		0.948	0.86	1.00

C. Level of Service Results

	Type	Vol		#of	Lane	f	f	f	Vol
		(vph)	FFS	Lanes	Width	W	HV	P	(pcph)
			(mph))	(ft)				
Freeway		9160	65	4	12.0	1.00	0.948	1.00	10172
Ramp	OFF	2470	45	1	12.0	1.00	0.948	1.00	2743
Upstream	ON	360			12.0	0.86	0.948	1.00	465

Estimation of V12:

PFD = 0.436 Using Equation: 10 V12 = 5982

Capacity Checks:

VFO+VR = 10172 V12 = 5982

LOS, Speed, and Density:

Level of Service (LOS) F
Computed Density (pc/mi/ln) *
Computed Speed (mph) *

^{*}Unstable flow

HCS: Ramps	Release 2.1g		Page 1
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Ph: (904) 392-0378

Analyst..... tc

Other Information.....

A. Ramp Configuration Input Data

	Freeway	Analysis Ramp	Upstream Ramp	
Traffic Volume	7050	360	2470	
Peak-Hour Factor	0.95	0.95	0.95	
Percentage HV's	11.0	11.0	11.0	
Percentage RV's	0.0	0.0	0.0	
Number of Lanes	3	1		
Lane Width (ft)	12.0	16.0	16.0	
Free-flow Speed (mph)	65	45		
Obstructions	0	0	2	
Distance from Edge (ft)			0.0	
Type of Ramp		OFF	ON	

Analysis ramp is a right-hand ramp. Length of deceleration lane is 600 ft. Distance to upstream ramp is 2200 ft.

HCS: Ramps	Release 2.1g	Page 2
========	=======================================	=========
File Name .	4DIV2025.HC5	

B. Adjustment Factors

		E	E	F	F	F
	Terrain Type	т	R	HV	W	P
Freeway	Z LEVEL	1.50		0.948	1.00	1.00
Ramp		1.50		0.948	1.00	1.00
Upstrm		1.50		0.948	0.86	1.00

C. Level of Service Results

	Type	Vol		#of	Lane	f	f	f	Vol
		(vph)	FFS	Lanes	Width	W	HV	P	(pcph)
			(mph))	(ft)				
Freeway		7050	65	3	12.0	1.00	0.948	1.00	7829
Ramp	OFF	360	45	1	16.0	1.00	0.948	1.00	400
Upstream	ON	2470			16.0	0.86	0.948	1.00	3190

Estimation of V12:

PFD = 0.546 Using Equation: 7 V12 = 4455

Capacity Checks:

VFO+VR = 7829 V12 = 4455

LOS, Speed, and Density:

Level of Service (LOS) F
Computed Density (pc/mi/ln) *
Computed Speed (mph) *

^{*}Unstable flow

HCS: Ramps Release 2.1g Page 1

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File Name 4DIVPM2025.HC5

Location..... 4 Diverge

Analyst..... tc

Other Information.....

A. Ramp Configuration Input Data

	Freeway	Analysis Ramp	Upstream Ramp	
Traffic Volume	4910	410	1670	
Peak-Hour Factor	0.95	0.95	0.95	
Percentage HV's	11.0	11.0	11.0	
Percentage RV's	0.0	0.0	0.0	
Number of Lanes	3	1		
Lane Width (ft)	12.0	16.0	16.0	
Free-flow Speed (mph)	65	45		
Obstructions	0	0	2	
Distance from Edge (ft)			0.0	
Type of Ramp		OFF	ON	

Analysis ramp is a right-hand ramp. Length of deceleration lane is 600 ft. Distance to upstream ramp is 2200 ft.

HCS: Ramps			=====	=====	:=====	=====		Page 2 ======
File Name .			4D	IVPM202	5.HC5			
		B. Ad	justme	ent Fac	tors			
	ain Type	E T	R		W	F P		
Freeway Ramp Upstrm						00 1. 00 1. 86 1.		
	С.	Level	of Se	ervice	Result	S		
) FFS (mph)	Lanes	Width (ft)	W	HV	P	(pcph)
Freeway Ramp Upstream								
Estimation								
	0.603			ation:	7	V12	= 3	468
Capacity Ch	necks:							
LOS, Speed,	and Densi	ty:		3468				
	Service (7 \		D			

Computed Density (pc/mi/ln)

Computed Speed (mph)

29 57

HCS: Ramps	Release 2.1g	Page 1
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Other Information.....

A. Ramp Configuration Input Data

	Freeway	Analysis Ramp	Downstream Ramp
Traffic Volume	7050	360	2470
Peak-Hour Factor	0.95	0.95	0.95
Percentage HV's	11.0	11.0	11.0
Percentage RV's	0.0	0.0	0.0
Number of Lanes	3	1	
Lane Width (ft)	12.0	12.0	12.0
Free-flow Speed (mph)	65	50	
Obstructions	0	0	0
Distance from Edge (ft)			
Type of Ramp		ON	OFF

Analysis ramp is a right-hand ramp. Length of acceleration lane is 1500 ft. Distance to downstream ramp is 2200 ft.

HCS: Ramps Release	2.1g	Page	2
File Name	4PM22025.HC5		
	B. Adjustment Factors		

		E	E	F	F	F
	Terrain Type	Т	R	HV	W	P
Freeway	z LEVEL	1.50		0.948	1.00	1.00
Ramp		1.50		0.948	1.00	1.00
Dnstrm		1.50		0.948	1.00	1.00

C. Level of Service Results

	Type		FFS		Lane Width	f W	f HV	f P	Vol (pcph)
		(• Þ11)	(mph)		(ft)		11 4	-	(РСРП)
Freeway		7050	65	3	12.0	1.00	0.948	1.00	7829
Ramp	ON	360	50	1	12.0	1.00	0.948	1.00	400
Downstream	OFF	2470			12.0	1.00	0.948	1.00	2743

Fet	imat	ion	οf	771	2	
EST	ımat	lon	OI	$V \perp$	۷٠	

PFM = 0.619 Using Equation: 2 V12 = 4850

Capacity Checks:

LOS, Speed, and Density:

Level of Service (LOS) F
Computed Density (pc/mi/ln) *
Computed Speed (mph) *

^{*}Unstable flow

HCS: Ramps	Release 2.1g		Page 1
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Ph: (904) 392-0378

File Name 4AMM2025.HC5

Location..... 4dam2025

Other Information.....

A. Ramp Configuration Input Data

	Freeway	Analysis Ramp	Downstream Ramp	
Traffic Volume	4910	410	1670	_
Peak-Hour Factor	0.95	0.95	0.95	
Percentage HV's	11.0	11.0	11.0	
Percentage RV's	0.0	0.0	0.0	
Number of Lanes	3	1		
Lane Width (ft)	12.0	12.0	12.0	
Free-flow Speed (mph)	65	50		
Obstructions	0	0	0	
Distance from Edge (ft)				
Type of Ramp		ON	OFF	

Analysis ramp is a right-hand ramp. Length of acceleration lane is 1500 ft. Distance to downstream ramp is 2200 ft.

HCS: Ramps									Page 2
File Name .									
		В	. Ad	justm	ent Fac	tors			
			E	E	F	দ	F		
Terr	ain Ty			R	HV	W			
Freeway Ramp Dnstrm	LEV:	EL	1.50 1.50		0.94 0.94	8 1. 8 1.	00 1. 00 1. 00 1.	0 0 0 0	
		C. :	Level	of S	ervice :	Result	s		
		(vph)	FFS	Lanes	Width (ft)	W	f HV	P	(pcph)
Freeway Ramp Downstream	ON OFF	4910 410 1670	65 50						5453 455 1855
Estimation	of V12	:							
PFM =	0.619		 Usin	 g Equ	ation:	2	V12	=	3378
Capacity Ch	necks:								
VFO =	5908		 VR12	= ;	3833				
LOS, Speed,	and D	ensit	y: 						
Level of Computed Computed	l Densi	ty (p	c/mi/	ln)		C 26 57			

HCS: Ramps	Release 2.1g		Page 1
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Gainesville, FL 32611-2083

Ph: (904) 392-0378

 ${\tt Analyst.} \qquad \qquad {\tt tc}$

Other Information.....

A. Ramp Configuration Input Data

		Analysis	Upstream	
	Freeway	Ramp	Ramp	
Traffic Volume	5744	1550	186	
Peak-Hour Factor	0.95	0.95	0.95	
Percentage HV's	11.0	11.0	11.0	
Percentage RV's	0.0	0.0	0.0	
Number of Lanes	4	2		
Lane Width (ft)	12.0	12.0	12.0	
Free-flow Speed (mph)	65	45		
Obstructions	0	0	2	
Distance from Edge (ft)			0.0	
Type of Ramp		OFF	ON	

Analysis ramp is a right-hand ramp. Length of deceleration lane is 2000 ft. Distance to upstream ramp is 2200 ft.

HCS: Ramps ======= File Name .	=======	=====				=====		Page 2 ======
		B. Ad	justme	ent Fact	cors			
	ain Type		R		W	P		
Freeway Ramp Upstrm	LEVEL	1.50 1.50			3 1. 3 1.	00 1. 00 1.	0 0 0 0	
	Type Vol) FFS (mph)	#of Lanes	ervice F Lane Width (ft)	f W	f HV	P	(pcph)
Freeway Ramp Upstream	5744	65	4	12.0	1.00	0.948	1.00	6379
Estimation								
	0.260			ion: Spe	ecial	App.	V12 =	2932
LOS, Speed,	6379 and Densi	ty:	2 =	2932				

В

55

11

Level of Service (LOS)

Computed Speed (mph)

Computed Density (pc/mi/ln)

HCS: Ramps	Release 2.1g		Page 1
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Other Information.....

A. Ramp Configuration Input Data

	Freeway	Analysis Ramp	Downstream Ramp
Traffic Volume	3070	254	1030
Peak-Hour Factor	0.95	0.95	0.95
Percentage HV's	11.0	11.0	11.0
Percentage RV's	0.0	0.0	0.0
Number of Lanes	3	1	
Lane Width (ft)	12.0	12.0	12.0
Free-flow Speed (mph)	65	50	
Obstructions	0	0	0
Distance from Edge (ft)			
Type of Ramp		ON	OFF

Analysis ramp is a right-hand ramp. Length of acceleration lane is 1500 ft. Distance to downstream ramp is 2200 ft.

HCS: Ramps									Page 2
File Name									·
		1	3. Ad	ljustm	ent Fac	tors			
	rain Ty			R			P		
Freeway Ramp Dnstrm		VEL	1.50 1.50		0.94 0.94	8 1. 8 1.	00 1. 00 1. 00 1.	00	
		C.	Level	of S	ervice	Result	s		
		(vph) FFS (mph)	Lanes	Width (ft)	W		Р	(pcph)
Freeway Ramp Downstream		3070	65	3	12.0	1.00	0.948	1.00	3409
Estimation									
PFM =					ation:	2	V12	! = 2	:112
Capacity Ch									
VFO =					2394				
LOS, Speed			_						
Level of Computed Computed	d Dens:	ity (1	pc/mi/	'ln)		15 60	i		

HCS: Ramps	Release 2.1g		Page 1
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Ph: (904) 392-0378

File Name 4PM22005.HC5 Location..... 4dpm2005

Other Information.....

A. Ramp Configuration Input Data

	Freeway	Analysis Ramp	Downstream Ramp	
Traffic Volume	4380	186	1550	-
Peak-Hour Factor	0.95	0.95	0.95	
Percentage HV's	11.0	11.0	11.0	
Percentage RV's	0.0	0.0	0.0	
Number of Lanes	3	1		
Lane Width (ft)	12.0	12.0	12.0	
Free-flow Speed (mph)	65	50		
Obstructions	0	0	0	
Distance from Edge (ft)				
Type of Ramp		ON	OFF	

Analysis ramp is a right-hand ramp. Length of acceleration lane is 1500 ft. Distance to downstream ramp is 2200 ft.

HCS: Ramps			_	=====	=====	=====	=====	====:	Page 2
File Name .				4P	м22005.	HC5			
		В	. Ad	justm	ent Fac	tors			
	ain Tyr		E T 		F HV	W	P		
Freeway Ramp Dnstrm		EL			0.94 0.94	8 1. 8 1.	00 1. 00 1. 00 1.	0 0 0 0	
		C.	Level	of S	ervice	Result	S		
	Туре	(vph)	FFS (mph)	Lanes	Width (ft)	W	f HV	Р	(pcph)
Freeway Ramp Downstream	ON	1380 186	65	3	12.0 12.0	1.00		1.00	4864 207
Estimation	-								
PFM =	0.619			 g Equ	ation:	2	V12	= 3	3013
Capacity Ch									
VFO =	 5071			= ;	3220				
LOS, Speed,									
Level of Computed	Densit	су (р	c/mi/			C 21			

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Computed Speed (mph)

HCS: Ramps	Release 2.1g		Page 1
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Gainesville, FL 32611-2083

Ph: (904) 392-0378

Analyst..... tc

Other Information.....

A. Ramp Configuration Input Data

		Analysis	Upstream	
	Freeway	Ramp	Ramp	
Traffic Volume	4380	186	1550	
Peak-Hour Factor	0.95	0.95	0.95	
Percentage HV's	11.0	11.0	11.0	
Percentage RV's	0.0	0.0	0.0	
Number of Lanes	3	1		
Lane Width (ft)	12.0	12.0	12.0	
Free-flow Speed (mph)	65	45		
Obstructions	0	0	2	
Distance from Edge (ft)			0.0	
Type of Ramp		OFF	ON	

Analysis ramp is a right-hand ramp. Length of deceleration lane is 600 ft. Distance to upstream ramp is 2200 ft.

HCS: Ramps								Page 2
File Name						======	=====	:=====
		B. Ad	djustm	ent Fact	cors			
	rain Type	T	R		W	Р		
Freeway Ramp Upstrm	LEVEL			0.948 0.948 0.948	3 1.		00	
	C.	Level	of S	ervice F	Result	s		
		oh) FFS (mph)	Lanes	Width (ft)	W	HV	P	(pcph)
Freeway Ramp Upstream	438 OFF 18	30 65 36 45	3 1	12.0 12.0	1.00	0.948 0.948	1.00	4864 207
Estimation	of V12:							
	0.629			ation:	7	V12	= 3	3136
Capacity Cl	necks:							
	= 4864			3136				

C

26

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Level of Service (LOS)

Computed Speed (mph)

Computed Density (pc/mi/ln)

HCS: Ramps	Release 2.1g		Page 1
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Ph: (904) 392-0378

File Name 4DIV05PM.HC5 Location..... 4 Diverge

Analyst..... tc

Other Information.....

A. Ramp Configuration Input Data

		Analysis	Upstream	
	Freeway	Ramp	Ramp	
Traffic Volume	3070	 254	1030	
Peak-Hour Factor	0.95	0.95	0.95	
Percentage HV's	11.0	11.0	11.0	
Percentage RV's	0.0	0.0	0.0	
Number of Lanes	3	1		
Lane Width (ft)	12.0	12.0	12.0	
Free-flow Speed (mph)	65	45		
Obstructions	0	0	2	
Distance from Edge (ft)			0.0	
Type of Ramp		OFF	ON	

Analysis ramp is a right-hand ramp. Length of deceleration lane is 600 ft. Distance to upstream ramp is 2200 ft.

HCS: Ramps								Page 2
File Name .						======	=====	======
	:	B. Ad	justme	ent Fac	tors			
	ain Type		R		W			
Freeway Ramp Upstrm						00 1. 00 1. 86 1.		
	Type Vol) FFS :	#of Lanes	ervice Lane Width			f P	Vol (pcph)
Freeway Ramp Upstream	3070 OFF 254	65 45	3	12.0 12.0	1.00	0.948	1.00	282
Estimation								
Capacity Ch	0.662			ation:	7	V12	= 2	2351
LOS, Speed,	3409 and Densi	ty:		2351				

В

58

19

Level of Service (LOS)

Computed Speed (mph)

Computed Density (pc/mi/ln)

HCS: Ramps Release 2.1g Page 1

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Gainesville, FL 32611-2083

Ph: (904) 392-0378

Analyst..... tc

Other Information.....

A. Ramp Configuration Input Data

		Analysis	Upstream	
	Freeway	Ramp	Ramp	
Traffic Volume	6170	1670	410	
Peak-Hour Factor	0.95	0.95	0.95	
Percentage HV's	11.0	11.0	11.0	
Percentage RV's	0.0	0.0	0.0	
Number of Lanes	4	2		
Lane Width (ft)	12.0	12.0	12.0	
Free-flow Speed (mph)	65	45		
Obstructions	0	0	2	
Distance from Edge (ft)			0.0	
Type of Ramp		OFF	ON	

Analysis ramp is a right-hand ramp. Length of deceleration lane is 2000 ft. Distance to upstream ramp is 2200 ft.

HCS: Ramps		_						Page 2
File Name .						======	=====	======
B. Adjustment Factors								
Terr	cain Type			HV		F P		
Freeway Ramp Upstrm	LEVEL	1.50 1.50 1.50		0.94 0.94	8 1.	00 1. 00 1. 86 1.	00	
	Type Vol) FFS	#of Lanes	Width	f W			
Freeway Ramp Upstream	6170 OFF 1670 ON 410	 65	4	(ft) 12.0 12.0 12.0	1.00	0.948 0.948 0.948	1.00 1.00 1.00	 6852 1855 529
Estimation	-							
	0.260			ion: Sp	ecial	App.	V12 =	3154
		 V1	2 =	3154				

В

13

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LOS, Speed, and Density:

Level of Service (LOS)

Computed Speed (mph)

Computed Density (pc/mi/ln)

HCS: Ramps Release 2.1g Page 1

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Gainesville, FL 32611-2083

Ph: (904) 392-0378

Analyst..... tc

Other Information.....

A. Ramp Configuration Input Data

		Analysis	Upstream	
	Freeway	Ramp	Ramp	
Traffic Volume	3846	1030	254	
Peak-Hour Factor	0.95	0.95	0.95	
Percentage HV's	11.0	11.0	11.0	
Percentage RV's	0.0	0.0	0.0	
Number of Lanes	4	2		
Lane Width (ft)	12.0	12.0	12.0	
Free-flow Speed (mph)	65	45		
Obstructions	0	0	2	
Distance from Edge (ft)			0.0	
Type of Ramp		OFF	ON	

Analysis ramp is a right-hand ramp. Length of deceleration lane is 2000 ft. Distance to upstream ramp is 2200 ft.

HCS: Ramps	Release	2.1g						Page 2
File Name .						======	=====	=====
B. Adjustment Factors								
	ain Type		R		W			
Freeway Ramp Upstrm	LEVEL					00 1. 00 1. 86 1.		
	Type Vol) FFS I	#of Lanes	ervice E Lane Width			f P	Vol (pcph)
Freeway Ramp Upstream	3846 OFF 1030	65 45	4	12.0 12.0	1.00		1.00	4271 1144
Estimation								
PFD =	0.260	Using :	Equat	ion: Spe	ecial	App.	V12 =	1957
Capacity Ch	ecks:							
LOS, Speed,	4271 and Densi	ty:		1957				

Α

3 56

Level of Service (LOS)

Computed Speed (mph)

Computed Density (pc/mi/ln)



Center For Microcomputers In Transportation

Streets: (E-W) SR-2

(N-S) HUNTER/MT VIEW RD File Name: AREC05AM.HC9

Analyst: TC

Area Type: (2-7-1 2005 AM							
=========	Eastbor	und R	Westbound L T R	Northbound	Southbound L T R					
No. Lanes Volumes Lane W (ft)	0 0	0	615 751 12.0 12.0 12.0	12.0 12.0	721 171 12.0 12.0					
RTOR Vols Lost Time	 		350 3.00 3.00	!	!					
			Signal Operatio	ns						
Phase Combi: EB Left Thru Right Peds		2	3 4 NB 	Thru Right Peds	6 7 8 * *					
WB Left Thru Right Peds NB Right	* *		SB EB	Thru * Right Peds Right						
SB Right Green Yellow/AR	25.0A 3.0			Right Teen 15.0A 20 Pellow/AR 3.0						

Cycle Length: 69 secs Phase combination order: #1 #5 #6

	Lane	Group:	Intersect	ion Perfo v/c	ormance :	Summary		Approac	ıh.
	Mvmts	Cap	Flow	Ratio	Ratio	Delay	LOS	Delay	LOS
WB	L	1282	3539	0.519	0.362	11.5	В	11.2	В
	LR	688	1900	0.000	0.362	0.0	A		
	R	1147	3167	0.417	0.362	10.8	В		
NB	TR	1080	3725	0.172	0.290	11.8	В	14.4	В
	R	918	3167	0.665	0.290	15.2	C		
SB	L	769	3539	0.623	0.217	16.9	C	17.0	С
	LT	786	3614	0.634	0.217	17.0	C		
		Int	ersection	Delay =	14.0 se	c/veh Int	cersec	tion LOS	= B

Lost Time/Cycle, L = 9.0 sec Critical v/c(x) = 0.596

Center For Microcomputers In Transportation

Streets: (E-W) SR-2 Analyst: TC

(N-S) HUNTER/MT VIEW RD File Name: AREC05AM.HC9

Area Type: Other

2-7-1 2005 AM

Comment: recommended

	E	astbo	und	 Wes	stbou	nd	No	rthbou	ınd	Sou	thbou	nd
	L	${f T}$	R	L	\mathbf{T}	R	L	T	R	L	T	R
No. Lanes	0	0	0	2 :	> 0	< 2	0	2 <	: 2	2 >	- 2	0
Volumes				615		751		168	693	721	171	
PHF or PK15				0.95		0.95		0.95	0.95	0.95	0.95	
Lane W (ft)				12.0	12.0	12.0		12.0	12.0	12.0	12.0	
Grade	ĺ			Ì	0			0			0	
% Heavy Veh	İ			2		2	į	2	2	2	2	
Parking	İ			N	N		N	N		N	N	
Bus Stops	Ì			Ì		0			0			0
Con. Peds			0	1		0			0			0
Ped Button	Ì			(Y/N) N		(Y/N) N		(Y/N)	N	
Arr Type	İ			3	3	3	Ì	3	3	3	3	
RTOR Vols				İ		350	Ì		180			0
Lost Time	į			13.00		3.00	į	3.00	3.00	3.00	3.00	
Prop. Share	j			0		0	İ		0	39		
Prop. Prot.	Ì						İ			İ		
_	1						•					

			Sig	nal (Operat	ions	3				
Pha	se Combination	. 1	2	3	4			5	6	7	8
EB	Left				[NB	Left				
	Thru				Ì		Thru		*		
	Right						Right		*		
	Peds						Peds				
WB	Left	*				SB	Left	*			
	Thru					1	Thru	*			
	Right	*			1		Right				
	Peds					1	Peds				
NB	Right					EB	Right				
SB	Right					WB	Right				
Gre	en 25	.OA				Gre	en 15	5.0A 20	.0A		
Yel	low/AR 3	3.0				Yel	low/AR 3	3.0 3	.0		
Сус	le Length: 69	secs	Phase	e com	binat	ion	order: ‡	‡1 #5 #	6		

Intersection Derform

			Intersect	ion Perf	ormance	Summary			
	Lane	Group:	Adj Sat	v/c	g/C			Approac	h:
	Mvmts	Cap	Flow	Ratio	Ratio	Delay	LOS	Delay	LOS
								-	
WB	L	1282	3539	0.519	0.362	11.5	В	11.2	В
	LR	688	1900	0.000	0.362	0.0	A		
	R	1147	3167	0.417	0.362	10.8	В		
NB	TR	1080	3725	0.172	0.290	11.8	В	14.4	В
	R	918	3167	0.665	0.290	15.2	C		
SB	L	769	3539	0.623	0.217	16.9	С	17.0	C
	LT	786	3614	0.634	0.217	17.0	С		
						/			_

Intersection Delay = 14.0 sec/veh Intersection LOS = B

Lost Time/Cycle, L = 9.0 sec Critical v/c(x) = 0.596

Center For Microcomputers In Transportation

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Streets: (E-W) SR-2

(N-S) HUNTER/MT VIEW RD File Name: ARECO5AM.HC9

Analyst: TC
Area Type: Other

2-7-1 2005 AM

Comment: recommended

Traffic and Roadway Conditions

	Ea	astboi	und	Wes	tbour	ıd	Noi	rthbou	ınd	Sou	ıthbou	nd
į	L	T	R	L	T	R	L	\mathbf{T}	R	L	T	R
No. Lanes	0	0	0	2 >	0 -	< 2	0	2 <	< 2	2 >	> 2	0
Volumes				615		751		168	693	721	171	
PHF or PK15				0.95		0.95		0.95	0.95	0.95	0.95	
Lane W (ft)				12.0	12.0	12.0		12.0	12.0	12.0	12.0	
Grade					0			0			0	
% Heavy Veh				2		2		2	2	2	2	
Parking	ĺ			N	N		N	N		N	N	
Bus Stops	İ			1		0			0			0
Con. Peds	ĺ		0			0			0	[0
Ped Button	İ			(Y/N)	N		(Y/N) N		(Y/N)) N	
Arr Type	Ì			3	3	3		3	3	3	3	
RTOR Vols	İ			İ		350			180			0
Lost Time				3.00		3.00		3.00	3.00	3.00	3.00	

Signal Operations

Pha EB	se Combination	n 1	2	3	4	NB	Left	5	6	7	8
	Thru					İ	Thru		*		
	Right						Right		*		
	Peds						Peds				
WB	Left	*				SB	Left	*			
	Thru						Thru	*			
	Right	*				İ	Right				
	Peds						Peds				
NB	Right					EB	Right				
SB	Right					WB	Right				
						İ					
Gre		5.0A				Gre		.0A 20			
Yel	low/AR	3.0				Yel	low/AR 3	.0 3	. 0		

Cycle Length: 69 secs Phase combination order: #1 #5 #6

Streets: (E-W) SR-2 (N-S) HUNTER/MT VIEW RD Analyst: TC File Name: AREC05AM.HC9

Area Type: Other 2-7-1 2005 AM

Comment: recommended

Volume Adjustment Worksheet

Direction/ Mvt	Mvt Vol	PHF	Adj Vol	Lane Grp	Lane Grp Vol	No. Ln	Lane Util Fact	Growth Fact	Adj Grp Vol	Prop LT	Prop RT
WB											
Left	615	0.95	647	L	647	2	1.030	1.000	666	1.00	0.00
Thru	0	0.95	0	LR	0	1	1.000	1.000	0	0.00	0.00
Right	751	0.95	423	R	423	2	1.130	1.000	478	0.00	1.00
NB											
Thru	168	0.95	177	TR	177	2	1.050	1.000	186	0.00	0.00
Right	693	0.95	540	R	540	2	1.130	1.000	610	0.00	1.00
SB											
Left	721	0.95	759	L	465	2	1.030	1.000	479	1.00	0.00
Thru	171	0.95	180	LT	474	2	1.050	1.000	498	0.62	0.00
								. .	. 		

Saturation Flow Adjustment Worksheet

	Ideal										Adj
Direction	Sat	No.	f	f	f	f	f	f	f	f	Sat
/LnGrp	Flow	Lns	W	HV	G	р	BB	A	RT	$_{ m LT}$	Flow
WB											
L	1900	2	1.00	0.98	1.00	1.00	1.00	1.00	1.00	0.95	3539
LR	1900	1	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1900
R	1900	2	1.00	0.98	1.00	1.00	1.00	1.00	0.85	1.00	3167
NB											
TR	1900	2	1.00	0.98	1.00	1.00	1.00	1.00	1.00	1.00	3725
R	1900	2	1.00	0.98	1.00	1.00	1.00	1.00	0.85	1.00	3167
SB											
L	1900	2	1.00	0.98	1.00	1.00	1.00	1.00	1.00	0.95	3539
$_{ m LT}$	1900	2	1.00	0.98	1.00	1.00	1.00	1.00	1.00	0.97	3614

Streets: (E-W) SR-2 (N-S) HUNT Analyst: TC File Name

(N-S) HUNTER/MT VIEW RD File Name: ARECO5AM.HC9

Area Type: Other 2-7-1 2005 AM

Comment: recommended

Capacity Analysis Worksheet

Direction /LnGrp	Adj Flow Rate (v)	Adj Sat Flow Rate (s)	Flow Ratio (v/s)	Green Ratio	Lane Group Capacity (c)	v/c	
EB							
WB L	666	3539	0.188	0.362	1282	0.520	*
		1900					
LR	0		0.000	0.362	688	0.000	
R	478	3167	0.151	0.362	1147	0.417	
NB							
TR	186	3725	0.050	0.290	1080	0.172	
R	610	3167	0.193	0.290	918	0.664	*
SB							
L	479	3539	0.135	0.217	769	0.623	
LT	498	3614	0.138	0.217	786	0.634	*
			Sum	(v/s) critical	l = 0.519		
Lost Time	/Cycle, L =	9.0 sec		cal v/c(x)	= 0.596		

Level of Service Worksheet

Direction /LnGrp		g/C Ratio		Adj	Lane Group Cap	d	Delay d 2	Lane Grp Del	Lane Grp LOS	Ву	LOS By App
EB WB											
L	0.519	9 0.362	13.1	0.850	1282	16	0.3	11.	5 B	11.2	В
LR	0.000	0.362	0.0	0.850	688	0	0.0	0.	0 A		
R	0.41	7 0.362	12.6	0.850	1147	16	0.1	10.	8 B		
NB											
TR	0.17	2 0.290	13.9	0.850	1080	16	0.0	11.	8 B	14.4	В
R	0.66	5 0.290	16.4	0.850	918	16	1.3	15.	2 C		
SB											
L	0.62	3 0.217	18.6	0.850	769	16	1.1	16.	9 C	17.0	С
$_{ m LT}$	0.63	4 0.217	18.6	0.850	786	16	1.2	17.	0 C		
		Interse	ction :	Delay :	= 14.	0 sec/	veh In	terse	ction	LOS =	В

Center For Microcomputers In Transportation

Streets: (E Analyst: TC Area Type: (Comment: red	Other commend	led		Fi: 2-	le Name: 7-1 2005		PM.HC	9	
==========		tbound		====== ound		nbound			
	L	T R	L T	R	L :	r R	L	T	R
No. Lanes Volumes	0	0 0	693	721		2 < 2 171 615	751	168	0
Lane W (ft) RTOR Vols Lost Time			İ	350	ĺ	2.0 12.0 180 .00 3.00)		0
Phase Combi	nation	1 2	Signal C	peration	ns	5	6	7	8
EB Left Thru Right Peds WB Left Thru Right Peds NB Right SB Right Green Yellow/AR Cycle Lengt	25 3	* * .OA		NB SB EB WB Gr Ye	Thru Right Peds Left Thru Right Peds Right Right een	* * 15.0A 20	* * 0.0A 3.0		
	Group:	Adj S	ection Pe Sat v/o	c q/	'C	-	os i	Approac Delay	h : LOS

			Intersect	ion Perf	ormance	Summary			
	Lane	Group:	Adj Sat	v/c	g/C			Approad	ch:
	Mvmts	Cap	Flow	Ratio	Ratio	Delay	LOS	Delay	LOS
WB	L	1282	3539	0.468	0.362	11.1	В	10.8	В
	LR	632	1744	0.354	0.362	10.5	В		
	R	1147	3167	0.309	0.362	10.3	В		
NB	TR	1025	3536	0.279	0.290	12.3	В	12.8	В
	R	918	3167	0.451	0.290	13.2	В		
SB	L	769	3539	0.646	0.217	17.2	C	17.2	С
	LT	785	3611	0.648	0.217	17.2	C		
		Int	ersection	Delay =	13.5 se	c/veh Int	cersec	tion LOS	= B
		_				, ,			

Lost Time/Cycle, L = 9.0 sec Critical v/c(x) = 0.507

HCM: SIGNALIZED INTERSECTION SUMMARY Version 2.4g 03-07-2001 Center For Microcomputers In Transportation

Streets: (E-W) SR-2

(N-S) HUNTER/MT VIEW RD

Analyst: TC

File Name: AREC05PM.HC9

Area Type: Other

2-7-1 2005 PM

Comment: recommended

=========	====	=====	=====	=====	====	=====	=====	=====	=====	=====	:=====	====
	E	astbo	und	Wes	stbou	nd	Noi	thbou	ınd	Sou	ıthbou	.nd
	L	\mathbf{T}	R	L	${f T}$	R	L	${f T}$	R	L	T	R
No. Lanes	0	0	0	2 :	> 0	< 2	0	2 <	< 2	2 >	> 2	0
Volumes				693		721		171	615	751	168	
PHF or PK15	İ			0.95		0.95		0.95	0.95	0.95	0.95	
Lane W (ft)				12.0	12.0	12.0		12.0	12.0	12.0	12.0	
Grade				İ	0		-	0			0	
% Heavy Veh	İ			2		2		2	2	2	2	
Parking	İ			N	N		N	N		N	N	
Bus Stops	į			İ		0	į		0			0
Con. Peds	İ		. 0	ĺ		0	į		0			0
Ped Button	İ			(Y/N) N		(Y/N) N		(Y/N) N	
Arr Type	Ì			3	3	3	İ	3	3	3	3	
RTOR Vols	i			İ		350	į		180	İ		0
Lost Time	i			3.00		3.00		3.00	3.00	3.00	3.00	
Prop. Share	İ			20		20			20	39		
Prop. Prot.	i			İ			İ					
				· 			· 					

Signal Operations

Phase Combination 1 2 3 4 | 5 6 7 8

EB Left | NB Left

Thru Thru Right Right Peds Peds SB Left WB Left Thru Thru Right Right Peds Peds NB Right EB Right WB Right SB Right Green 15.0A 20.0A 25.0A Green

Yellow/AR 3.0 Yellow/AR 3.0 3.0

Cycle Length: 69 secs Phase combination order: #1 #5 #6

	Lane	Group:	Intersect Adj Sat	ion Perf v/c	ormance : g/C	Summary		Approac	ch:
	Mvmts	Cap	Flow	Ratio	Ratio	Delay	LOS	Delay	LOS
WB	L	1282	3539	0.468	0.362	11.1	В	10.8	В
	LR	632	1744	0.354	0.362	10.5	В		
	R	1147	3167	0.309	0.362	10.3	В		
NB	TR	1025	3536	0.279	0.290	12.3	В	12.8	В
	R	918	3167	0.451	0.290	13.2	В		
SB	L	769	3539	0.646	0.217	17.2	C	17.2	C
	$_{ m LT}$	785	3611	0.648	0.217	17.2	С		
		Inte	ersection	Delav =	13.5 se	c/veh Int	tersec	tion LOS	= B

Intersection Delay = 13.5 sec/veh Intersection LOS = I Lost Time/Cycle, L = 9.0 sec Critical v/c(x) = 0.507

Center For Microcomputers In Transportation

University of Florida

512 Weil Hall

Gainesville, FL 32611-2083 (904) 392-0378

Streets: (E-W) SR-2

(N-S) HUNTER/MT VIEW RD File Name: ARECO5PM.HC9

Analyst: TC Area Type: Other

2-7-1 2005 PM

Comment: recommended

Traffic and Roadway Conditions

	Ea	stbou	ınd	Wes	stbour	nd	Noi	thbou	ınd	Sou	thbou	nd
	L	\mathbf{T}	R	L	\mathbf{T}	R	L	Т	R	L	T	R
No. Lanes	.0	0	0	2 :	> 0 ·	< 2	0	2 <	< 2	2 >	> 2	0
Volumes				693		721		171	615	751	168	
PHF or PK15				0.95		0.95		0.95	0.95	0.95	0.95	
Lane W (ft)				12.0	12.0	12.0		12.0	12.0	12.0	12.0	
Grade					0			0		1	0	
% Heavy Veh				2		2	1	2	2	2	2	
Parking	ĺ			N	N		N	N		N	N	
Bus Stops				1		0			0			0
Con. Peds	Ì		0			0			0			0
Ped Button	į			(Y/N) N		(Y/N) N		(Y/N)) N	
Arr Type	İ			3	3	3		3	3	3	3	
RTOR Vols						350			180			0
Lost Time	1			3.00		3.00		3.00	3.00	3.00	3.00	

Signal Operations

Pha EB	se Combination Left	1	2	3	4	NB	Left	5	6	7	8
	Thru Right						Thru Right		*		
	Peds						Peds				
WB	Left	*				SB	Left	*			
	Thru					1	Thru	*			
	Right	*					Right				
	Peds					Ì	Peds				
NB	Right					EB	Right				
SB	Right					WB	Right				
Gre	en 25	.0A				Gre		.0A 20	.0A		
Yel	low/AR 3	. 0				Yel	low/AR 3	.0 3	.0		

Cycle Length: 69 secs Phase combination order: #1 #5 #6

Streets: (E-W) SR-2 (N-S) HUNTER/MT VIEW RD Analyst: TC File Name: AREC05PM.HC9

Area Type: Other 2-7-1 2005 PM

Comment: recommended

Volume Adjustment Worksheet

Direc-	-				Lane		Lane		Adj		
tion/	Mvt		Adj	Lane	Grp	No.	Util	Growth	Grp	Prop	Prop
Mvt	Vol	PHF	Vol	Grp	Vol	Ln	Fact	Fact	Vol	LT	RT
								4			
WB											
Left	693	0.95	729	L	583	2	1.030	1.000	600	1.00	0.00
Thru	0	0.95	0	LR	224	1	1.000	1.000	224	0.65	0.35
Right	721	0.95	391	R	313	2	1.130	1.000	354	0.00	1.00
NB											
Thru	171	0.95	180	TR	272	2	1.050	1.000	286	0.00	0.34
Right	615	0.95	458	R	366	2	1.130	1.000	414	0.00	1.00
SB											
Left	751	0.95	791	L	483	2	1.030	1.000	497	1.00	0.00
Thru	168	0.95	177	LT	485	2	1.050	1.000	509	0.64	0.00

Saturation Flow Adjustment Worksheet

	Ideal		_								Adj
Direction	Sat	No.	f	f	f	f	f	f	f	f	Sat
/LnGrp	Flow	Lns	W	HV	G	p	BB	A	RT	$_{ m LT}$	Flow
WB											
${f L}$	1900	2	1.00	0.98	1.00	1.00	1.00	1.00	1.00	0.95	3539
LR	1900	1	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.97	1744
R	1900	2	1.00	0.98	1.00	1.00	1.00	1.00	0.85	1.00	3167
NB											
TR	1900	2	1.00	0.98	1.00	1.00	1.00	1.00	0.95	1.00	3536
R	1900	2	1.00	0.98	1.00	1.00	1.00	1.00	0.85	1.00	3167
SB											
L	1900	2	1.00	0.98	1.00	1.00	1.00	1.00	1.00	0.95	3539
$_{ m LT}$	1900	2	1.00	0.98	1.00	1.00	1.00	1.00	1.00	0.97	3611

Streets: (E-W) SR-2 (N-S) HUNTER/MT VIEW RD Analyst: TC File Name: AREC05PM.HC9

Area Type: Other 2-7-1 2005 PM

Comment: recommended

Capacity Analysis Worksheet

Adj Direction Flow Rate /LnGrp (v)	Adj Sat Flow Rate (s)	Flow Ratio (v/s)	Green Ratio	Lane Group Capacity (c)		
EB WB						
L 600	3539	0.170	0.362	1282	0.468	*
LR 224	1744	0.128	0.362	632	0.354	
R 354	3167	0.112	0.362	1147	0.309	
NB						
TR 286	3536	0.081	0.290	1025	0.279	
R 414	3167	0.131	0.290	918	0.451	*
SB						
L 497	3539	0.140	0.217	769	0.646	
LT 509	3611	0.141	0.217	785	0.648	*
		Sum	(v/s) critica	1 = 0.441		
Lost Time/Cycle, L =	9.0 sec	Criti	cal v/c(x)	= 0.507		

Level of Service Worksheet

Direction /LnGrp	v/c Ratio	_	Delay d 1	Del Adj Fact		d	Delay d 2	Lane Grp Del	Lane Grp LOS	Delay By App	LOS By App
/ migrb	Nacio	Racio	-	racc	cap	2	2	DCI	100	ubb	LPP
EB											
WB											
L	0.468	0.362	12.8	0.850	1282	16	0.2	11.	1 B	10.8	В
LR	0.354	0.362	12.2	0.850	632	16	0.2	10.	5 B		
R	0.309	0.362	12.0	0.850	1147	16	0.1	10.	3 B		
NB											
TR	0.279	0.290	14.4	0.850	1025	16	0.0	12.	3 B	12.8	В
R	0.451	L 0.290	15.2	0.850	918	16	0.3	13.	2 B		
SB											
L	0.646	0.217	18.7	0.850	769	16	1.3	17.	2 C	17.2	C
LT	0.648	3 0.217	18.7	0.850	785	16	1.3	17.	2 C		
]	Interse	ction	Delay	= 13.	5 sec/	veh In	terse	ction	LOS =	В

Center For Microcomputers In Transportation

Streets: (E-W) SR-2 Analyst: TC

(N-S) HUNTER/MT VIEW RD File Name: AREC25AM.HC9

Area Type: Other

2-7-1 2025 AM

Comment: red	commer	ıded									
	===== Ea L	astbo T	und R	Westbo	ound R	No L	rthbou T	and R	Sou L	zthbou T	ind R
No. Lanes Volumes Lane W (ft) RTOR Vols Lost Time	0	0	0	 2 > 0 977 12.0 12 3.00	<pre></pre>	0	12.0	 < 2 1134 12.0 180 3.00	1176 12.0		0
Phase Combi	natio	n 1	2	Signal O	peration 4 NB	ns Lef		5	6	7	8

				. T.							
Phas	se Combinatio	n 1	2	3	4			5	6	7	8
EΒ	Left					NB	Left				
	Thru						Thru		*		
	Right						Right		*		
	Peds						Peds				
WB	Left	*				SB	Left	*			
	Thru					İ	Thru	*			
	Right	*				İ	Right				
	Peds					İ	Peds				
NB	Right					EB	Right				
SB	Right					WB	Right				
Gre	-	25.0A				Gre	en 15	.0A 20	.0A		
Yel	low/AR	3.0				Yel	low/AR 3	.0 3	. 0		
		69 secs	Phase	combi	nat	ion	order: #	1 #5 #	6		

Cycle Length: 69 secs Phase combination order: #1 #5 #6

	Intersection Performance Summary											
	Lane	Group:	Intersect Adj Sat	ion Perfo v/c	ormance S g/C	Summary		Approac	ch:			
	Mvmts	Cap	Flow	Ratio	Ratio	Delay	LOS	Delay	LOS			
WB	L	1282	3539	0.661	0.362	12.8	В	17.2	C			
	LR	619	1709	0.707	0.362	14.8	В					
	R	1147	3167	0.915	0.362	21.7	С					
NB	TR	972	3352	0.325	0.290	12.5	В	30.3	D			
	R	918	3167	0.990	0.290	36.5	D					
SB	L	769	3539	1.011	0.217	45.1	E	34.0	D			
	LT	775	3567	0.734	0.217	18.8	С					
		Int	ersection	Delay =	25.1 se	c/veh Int	tersec	tion LOS	= D			

Lost Time/Cycle, L = 9.0 sec Critical v/c(x) = 0.964

Center For Microcomputers In Transportation

Streets: (E-W) SR-2

(N-S) HUNTER/MT VIEW RD File Name: AREC25AM.HC9

Analyst: TC Area Type: Other 2-7-1 2025 AM

Comment: recommended

=========		====	=====		====:	=====	=====	=====		=====	:=====	====
	E	astbo [.]	und	Wes	stbou	nd	Nor	thbou	ınd	Sou	ıthbou	nd
	L	${f T}$	R	L	\mathbf{T}	R	L	T	R	L	T	R
No. Lanes	0	0	0	2 :	> 0 ·	< 2	0	2 <	< 2	2 :	> 2	0
Volumes				977		1453		95	1134	1176	56	
PHF or PK15				0.95		0.95		0.95	0.95	0.95	0.95	
Lane W (ft)	ĺ			12.0	12.0	12.0		12.0	12.0	12.0	12.0	
Grade				İ	0			0			0	
% Heavy Veh	ĺ			2		2		2	2	2	2	
Parking	İ			N	N		N	N		N	N	
Bus Stops						0	ļ		0	ĺ		0
Con. Peds	İ		0	İ		0			0	İ		0
Ped Button	İ			(Y/N) N		(Y/N)	N		(Y/N) N	
Arr Type	İ			3	3	3	Ì	3	3	3	3	
RTOR Vols	İ			İ		350	į		180	ĺ		0
Lost Time	İ			3.00		3.00	İ	3.00	3.00	3.00	3.00	
Prop. Share				20		20			20	39		
Prop. Prot.	İ			i			į					

			Sig	nal	Operat	cions	3				
Phas	se Combination	1	2	3	4			5	6	7	8
EB	Left					NB	Left				
	Thru						Thru		*		
	Right						Right		*		
	Peds					ĺ	Peds				
WB	Left	*				SB	Left	*			
	Thru						Thru	*			
	Right	*				İ	Right				
	Peds						Peds				
NB	Right					EB	Right				
SB	Right					WB	Right				
Gre	en 25	.0A				Gre	en 15	5.0A 20	A0.0		
Yel	low/AR 3	.0				Yel	low/AR :	3.0	3.0		
							-				

Cycle Length: 69 secs Phase combination order: #1 #5 #6

	Lane Mvmts	Group: Cap	Intersect Adj Sat Flow	ion Perf v/c Ratio	ormance S g/C Ratio	Summary Delay	LOS	Approac Delay	ch: LOS
WB	L	1282	3539	0.661	0.362	12.8	В	17.2	С
	LR	619	1709	0.707	0.362	14.8	В		
	R	1147	3167	0.915	0.362	21.7	С		
NB	TR	972	3352	0.325	0.290	12.5	В	30.3	D
	R	918	3167	0.990	0.290	36.5	D		
SB	L	769	3539	1.011	0.217	45.1	E	34.0	D
	\mathtt{LT}	775	3567	0.734	0.217	18.8	С		
		Inte	ersection	Delay =	25.1 sed	c/veh Int	ersec	tion LOS	= D

Lost Time/Cycle, L = 9.0 sec Critical v/c(x) = 0.964

Center For Microcomputers In Transportation

University of Florida

512 Weil Hall

Gainesville, FL 32611-2083 (904) 392-0378

Streets: (E-W) SR-2 (N-S) HUNTER/MT VIEW RD Analyst: TC File Name: AREC25AM.HC9

Area Type: Other 2-7-1 2025 AM

Comment: recommended

Traffic and Roadway Conditions

	E	astbo	und	Wes	tbour	nd	Nor	thbou	ınd	Sou	thbou	nd
	L	T	R	L	T	R.	L	T	R	L	T	R
No. Lanes	0	0	0	2 >	0 <	< 2	0	2 <	< 2	2 >	2 .	0
Volumes				977		1453		95	1134	1176	56	
PHF or PK15				0.95		0.95		0.95	0.95	0.95	0.95	
Lane W (ft)	Ì			12.0	12.0	12.0		12.0	12.0	12.0	12.0	
Grade				İ	0			0			0	
% Heavy Veh				2		2		2	2	2	2	
Parking				N	N		N	N		N	N	
Bus Stops						0			0			0
Con. Peds	ĺ		0	ĺ		0	j		0			0
Ped Button				(Y/N)	N		(Y/N) N		(Y/N)	N	
Arr Type				3	3	3	Ì	3	3	3	3	
RTOR Vols	ĺ					350			180	1		0
Lost Time				3.00		3.00	İ	3.00	3.00	3.00	3.00	

Signal Operations

Phas EB	se Combination Left	1	2	3	4	NB	Left	5	6	7	8
	Thru						Thru		*		
	Right						Right		*		
	Peds						Peds				
WB	Left	*				SB	Left	*			
	Thru						Thru	*			
	Right	*					Right				
	Peds						Peds				
NB	Right					EB	Right				
SB	Right					WB	Right				
Gre	en 25	.0A				Gree	en 15	.0A 20	.0A		
Yel	low/AR 3	. 0				Yel:	low/AR 3	.0 3	.0		

Cycle Length: 69 secs Phase combination order: #1 #5 #6

Streets: (E-W) SR-2

(N-S) HUNTER/MT VIEW RD File Name: AREC25AM.HC9

Analyst: TC

2-7-1 2025 AM

Area Type: Other

Comment: recommended

Volume Adjustment Worksheet

Direc-	-				Lane		Lane		Adj		
tion/	Mvt		Adj	Lane	Grp	No.	Util	Growth	Grp	Prop	Prop
Mvt	Vol	PHF	Vol	Grp	Vol	Ln	Fact	Fact	Vol	LT	RT
WB											
Left	977	0.95	1028	L	822	2	1.030	1.000	847	1.00	0.00
Thru	0	0.95	0	LR	438	1	1.000	1.000	438	0.47	0.53
Right	1453	0.95	1161	R	929	2	1.130	1.000	1050	0.00	1.00
NB											
Thru	95	0.95	100	TR	301	2	1.050	1.000	316	0.00	0.67
Right	1134	0.95	1005	R	804	2	1.130	1.000	909	0.00	1.00
SB											
Left	1176	0.95	1238	L	755	2	1.030	1.000	778	1.00	0.00
Thru	56	0.95	59	LT	542	2	1.050	1.000	569	0.89	0.00
											

Saturation Flow Adjustment Worksheet

Direction /LnGrp	Ideal Sat Flow	No. Lns	f W	f HV	f G	f p	f BB	f A	f RT	f LT	Adj Sat Flow
WB											
L	1900	2	1.00	0.98	1.00	1.00	1.00	1.00	1.00	0.95	3539
LR	1900	1	1.00	1.00	1.00	1.00	1.00	1.00	0.92	0.98	1709
R	1900	2	1.00	0.98	1.00	1.00	1.00	1.00	0.85	1.00	3167
NB											
TR	1900	2	1.00	0.98	1.00	1.00	1.00	1.00	0.90	1.00	3352
R	1900	2	1.00	0.98	1.00	1.00	1.00	1.00	0.85	1.00	3167
SB											
L	1900	2	1.00	0.98	1.00	1.00	1.00	1.00	1.00		3539
$_{ m LT}$	1900	2	1.00	0.98	1.00	1.00	1.00	1.00	1.00	0.96	3567

03-07-2001 3 HCS: Signalized Intersection Version 2.4g -----

Streets: (E-W) SR-2 (N-S) HUNTER/MT VIEW RD File Name: AREC25AM.HC9 Analyst: TC

2-7-1 2025 AM Area Type: Other

Comment: recommended

Capacity Analysis Worksheet

Direction /LnGrp	Adj Flow Rate (v)	Adj Sat Flow Rate (s)	Ratio	Green Ratio (g/C)	Lane Group Capacity (c)		
EB							
WB						•	
L	847	3539	0.239	0.362	1282	0.661	
LR	438	1709	0.256	0.362	619	0.708	
R	1050	3167	0.332	0.362	1147	0.915	*
NB							
TR	316	3352	0.094	0.290	972	0,325	
R	909	3167	0.287	0.290	918	0.990	*
SB							
L	778	3539	0.220	0.217	769	1.012	*
LT	569	3567	0.160	0.217	775	0.734	
- L	202			(v/s) critica			
	/ C1 - T	0 0 00		cal v/c(x)			
Lost Time	:/Сусте, ь =	= 9.0 sec	Crici	LCal V/C(X)	= 0.964		

Level of Service Worksheet

	v/c g/C Ratio Ratio		dj	Lane Group Cap	d	d ,	Lane Grp Del	Lane Grp LOS	Ву	LOS By App
EB										
WB										
L	0.661 0.36	2 14.0 0	.850	1282	16	0.9	12.	8 B	17.2	C
LR	0.707 0.36	2 14.3 0	.850	619	16	2.6	14.	8 B		
R	0.915 0.36	2 16.0 0	.850	1147	16	8.2	21.	7 C		
NB										
TR	0.325 0.29	0 14.6 0	.850	972	16	0.1	12.	5 B	30.3	D
R	0.990 0.29	0 18.5 0	.850	918	16	20.7	36.	5 D		
SB										
L	1.011 0.21	7 20.5 0	.850	769	16	27.7	45.	1 E	34.0	D
LT	0.734 0.21	7 19.1 0	0.850	775	16	2.5	18.	8 C		
	Inters	ection De	elay :	= 25.	1 sec/	veh In	terse	ction	LOS =	D

Center For Microcomputers In Transportation

Streets: (E-W) SR-2

(N-S) HUNTER/MT VIEW RD File Name: AREC25PM.HC9

Analyst: TC
Area Type: Other

2-7-1 2025 PM

Comment: recommended

	E	astbo	und	West	bound	Noi	thbou	ınd	Sou	ıthbou	ınd
	L	\mathbf{T}	R	L	T R	L	Ť	R	Ŀ	T	R
No. Lanes	0	0	0	2 >	0 < 2	0	2 .	< 2	2 >	> 2	0
Volumes				1134	1176				1337		
Lane W (ft)				12.0 1	2.0 12.0		12.0	12.0	12.0	12.0	
RTOR Vols					300			125			0
Lost Time				3.00	3.00		3.00	3.00	3.00	3.00	

			Sig	nal Op	erat	ions	3				
Phas	se Combination	1	2	3	.4			5	6	7	8
EB	Left					NB	Left				
	Thru				[Thru		*		
	Right				1		Right		*		
	Peds						Peds				
WB	Left	*				SB	Left	*			
	Thru						Thru	*			
	Right	*					Right				
	Peds						Peds				
NB	Right					EB	Right				
SB	Right					WB	Right				
Gre	en 22	.0A				Gree	en 18	.0A 21	.0A		
Yel	low/AR 3	. 0				Yel	low/AR 3	.0 3	. 0		
Сус	le Length: 70	secs	Phase	combi	nat:	ion (order: #	1 #5 #	6		

	Lane	Group:	Intersect: Adj Sat	v/c	g/C	_		Approac	
	Mvmts	Cap	Flow	Ratio	Ratio	Delay	LOS	Delay	LOS
WB	L	1112	3539	0.885	0.314	21.0	С	19.8	С
	LR	543	1727	0.779	0.314	19.0	C		
	R	995	3167	0.838	0.314	19.0	C		
NB	TR	988	3292	0.279	0.300	12.1	В	27.4	D
	R	950	3167	0.969	0.300	32.0	D		
SB	L	910	3539	1.035	0.257	49.1	E	36.0	D
	LT	926	3601	0.810	0.257	19.6	C		
		Int	ersection :	Delay =	27.0 sed	c/veh Int	cersec	tion LOS	= D
T 1	_ m=_ /	Crala I	0 0 ~	on Cont	+ + 1 / .	~ (35)	0.05	O	

Lost Time/Cycle, L = 9.0 sec Critical v/c(x) = 0.958

HCM: SIGNALIZED INTERSECTION SUMMARY Version 2.4g 03-07-2001 Center For Microcomputers In Transportation

Streets: (E-W) SR-2

Analyst: TC

(N-S) HUNTER/MT VIEW RD File Name: AREC25PM.HC9

Area Type: Other 2-7-1 2025 PM

Comment: recommended

=========	====		=====		====:	=====	====:	=====		=====	=====	====
	E	Eastbo	und	Wes	stbou	nd	No	rthbou	ınd	Sou	ıthbou	.nd
	L	T	R	L	${f T}$	R	L	T	R	L	T	R
No. Lanes	0	0	0	2 :	> 0	< 2	0	2 <	< 2	2 :	> 2	0
Volumes				1134		1176		56	1093	1337	211	
PHF or PK15				0.95		0.95		0.95	0.95	0.95	0.95	
Lane W (ft)				12.0	12.0	12.0	ĺ	12.0	12.0	12.0	12.0	
Grade					0			0			0	
% Heavy Veh				2		2]	2	2	2	2	
Parking				N	N		N	N		N	N	
Bus Stops				İ		0			0			0
Con. Peds			0	ļ		0			0			0
Ped Button				(X/N) N		(Y/N) N		(Y/N) N	
Arr Type				3	3	3		3	3	3	3	
RTOR Vols						300	ļ		125			0
Lost Time				3.00		3.00		3.00	3.00	3.00	3.00	
Prop. Share				20		20	1		20	35		
Prop. Prot.												

			S	ignal	. Oper	ation	ıs				
Pha	se Combination	1	2	3	4			5	6	7	8
EB	Left					NB	Left				
	Thru						Thru		*		
	Right						Right		*		
	Peds						Peds				
WB	Left	*				SB	Left	*			
	Thru					ĺ	Thru	*			
	Right	*				İ	Right				
	Peds					Ì	Peds				
NB	Right					EB	Right				
SB	Right					WB	Right				
Gre	en 22	.0A				Gre	een	18.0A	21.0A		
Yel	low/AR 3	. 0				Yel	Llow/AR	3.0	3.0		

Cycle Length: 70 secs Phase combination order: #1 #5 #6

	Lane Mvmts	Group: Cap	Intersect Adj Sat Flow	ion Perfo v/c Ratio	ormance S g/C Ratio	Summary Delay	LOS	Approac Delay	ch: LOS			
WB	L	1112	3539	0.885	0.314	21.0	C	19.8	C			
	LR	543	1727	0.779	0.314	19.0	C					
	R	995	3167	0.838	0.314	19.0	С					
NB	TR	988	3292	0.279	0.300	12.1	В	27.4	D			
	R	950	3167	0.969	0.300	32.0	D					
SB	L	910	3539	1.035	0.257	49.1	E	36.0	D			
	$_{ m LT}$	926	3601	0.810	0.257	19.6	С					
		Int	ersection	Delav =	27.0 se	c/veh Int	cersec	tion LOS	= D			

Intersection Delay = 27.0 sec/veh Intersection LOS = I Lost Time/Cycle, L = 9.0 sec Critical v/c(x) = 0.958

Center For Microcomputers In Transportation

University of Florida

512 Weil Hall

Gainesville, FL 32611-2083 (904) 392-0378

Streets: (E-W) SR-2 Analyst: TC (N-S) HUNTER/MT VIEW RD File Name: AREC25PM.HC9

Area Type: Other

2-7-1 2025 PM

Comment: recommended

Traffic and Roadway Conditions

	Eastbound		Westbound			Northbound			Southbound			
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	2 >	> 0	< 2	0		< 2		> 2	0
Volumes				1134		1176			-	1	211	
PHF or PK15				0.95		0.95		0.95	0.95	0.95	0.95	
Lane W (ft)				12.0	12.0	12.0		12.0	12.0	12.0	12.0	
Grade	[- 0			0			0	
% Heavy Veh				2		2		2	2	2	2	
Parking				N	N		N	N		N	N	
Bus Stops	1					0			0			0
Con. Peds			0			0			0	İ		0
Ped Button				(X/N)	N		(Y/N) N		(X/N)) N	
Arr Type				3	3	3		3	3	3	3	
RTOR Vols						300			125	1		0
Lost Time				3.00		3.00	1	3.00	3.00	3.00	3.00	

Signal Operations

			_	_							
Pha EB	se Combination Left	1	2	3	4	 NB	Left	5	6	7	8
	Thru					į	Thru		*		
	Right					İ	Right		*		
	Peds					1	Peds				
WB	Left	*				SB	Left	*			
	Thru						Thru	*			
	Right	*					Right				
	Peds						Peds				
NB	Right					EB	Right				
SB	Right					WB	Right				
Gre	en 22	.0A				Gre	en 18	.0A 21	.0A		
Yel	low/AR 3	. 0				Yel	low/AR 3	.0 3	. 0		

Cycle Length: 70 secs Phase combination order: #1 #5 #6

Streets: (E-W) SR-2 (N-S) HUNTER/MT VIEW RD Analyst: TC File Name: AREC25PM.HC9

Area Type: Other 2-7-1 2025 PM

Comment: recommended

Volume Adjustment Worksheet

Direc-	_				Lane		Lane		Adj		
tion/	Mvt		Adj	Lane	Grp	No.	Util	Growth	Grp	Prop	Prop
Mvt	Vol	PHF	Vol	Grp	Vol	Ln	Fact	Fact	Vol	$_{ m LT}$	RT
WB											
Left	1134	0.95	1194	L	955	2	1.030	1.000	984	1.00	0.00
Thru	0	0.95	0	LR	423	1	1.000	1.000	423	0.56	0.43
Right	1176	0.95	922	R	738	2	1.130	1.000	834	0.00	1.00
NB											
Thru	56	0.95	59	\mathtt{TR}	263	2	1.050	1.000	276	0.00	0.78
Right	1093	0.95	1019	\mathbb{R}	815	2	1.130	1.000	921	0.00	1.00
SB											
Left	1337	0.95	1407	L	915	2	1.030	1.000	942	1.00	0.00
Thru	211	0.95	222	LT	714	2	1.050	1.000	750	0.69	0.00

Saturation Flow Adjustment Worksheet

_												
		Ideal										Adj
· E	irection	Sat	No.	f	f	f	f	f	£	f	f	Sat
_	LnGrp	Flow	Lns	W	HV	G	р	BB	A	RT	LT	Flow
_												
V	/B											
	L	1900	2	1.00	0.98	1.00	1.00	1.00	1.00	1.00	0.95	3539
	LR	1900	1	1.00	1.00	1.00	1.00	1.00	1.00	0.93	0.97	1727
	R	1900	2	1.00	0.98	1.00	1.00	1.00	1.00	0.85	1.00	3167
1	1B											
	TR	1900	2	1.00	0.98	1.00	1.00	1.00	1.00	0.88	1.00	3292
	R	1900	2	1.00	0.98	1.00	1.00	1.00	1.00	0.85	1.00	3167
5	SB											
	L	1900	2	1.00	0.98	1.00	1.00	1.00	1.00	1.00	0.95	3539
	$_{ m LT}$	1900	2	1.00	0.98	1.00	1.00	1.00	1.00	1.00	0.97	3601

Streets: (E-W) SR-2 (N-S) HUNTER/MT VIEW RD Analyst: TC File Name: AREC25PM.HC9

Area Type: Other 2-7-1 2025 PM

Comment: recommended

Capacity Analysis Worksheet

	Adj	Adj Sat	Flow		Lane Group		
Direction	Flow Rate	Flow Rate	Ratio	Green Ratio	Capacity	v/c	
/LnGrp	(v)	(s)	(v/s)	(g/C)	·(C)	Ratio	
EB							
WB _	0.0.4	2520	0 0 0 0	0 214	1110	0 005	4
${f L}$	984	3539	0.278	0.314	1112	0.885	^
LR	423	1727	0.245	0.314	543	0.779	
R	834	3167	0.263	0.314	995	0.838	
NB							
TR	276	3292	0.084	0.300	988	0.279	
R	921	3167	0.291	0.300	950	0.969	*
SB		0.107		• • • • • • • • • • • • • • • • • • • •			
L	942	3539	0.266	0.257	910	1.035	*
${ m LT}$	750	3601	0.208	0.257	926	0.810	
			Sum	(v/s) critica	1 = 0.835		
Lost Time	e/Cvcle, L =	9.0 sec	Criti	ical v/c(x)	= 0.958		
2000 11	., -,						

Level of Service Worksheet

					- 	 -					
Direction		_	Delay d	Adj	Group	d	ď	Grp	Grp	Delay By	Ву
/LnGrp	Ratio	Ratio	Τ.	Fact	Cap	2	2	Del	LOS	App	App
EB											
WB											
${f L}$	0.885	0.314	17.3	0.850	1112	16	6.2	21.	0 C	19.8	С
LR	0.779	9 0.314	16.6	0.850	543	16	4.9	19.	0 C		
R	0.838	3 0.314	17.0	0.850	995	16	4.5	19.	0 C		
NB											
TR	0.27	9 0.300	14.2	0.850	988	16	0.0	12.	1 B	27.4	D
R	0.96	9 0.300	18.4	0.850	950	16	16.4	32.	0 D		
SB											
L	1.03	5 0.257	19.8	0.850	910	16	32.3	49.	1 E	36.0	D
$_{ m LT}$	0.81	0 0.257	18.5	0.850	926	16	3.8	19.	6 C		
		Interse	ction	Delay	= 27.	0 sec/	veh In	terse	ction	LOS =	D

Center For Microcomputers In Transportation

Streets: (E-W) SR-2

(N-S) I-75 SB Exit

Analyst: TC

File Name: BREC05PM.HC9

Area Type: Other

2-7-1 2005 AM

Comment: recommended

=======================================	Eastbound			Westbound			Northbound			Southbound		
	L	\mathbf{T}	R	L	T	R	L	Т	R	L	T	R
No. Lanes	0	2	2	0	3	0	0	0	. 0	1	0	1
Volumes		604	810		1284					104		82
Lane W (ft)	1	12.0	12.0		12.0					12.0		12.0
RTOR Vols	ĺ		0			0						0
Lost Time	Ì	3.00	3.00		3.00		ĺ			3.00		3.00
	- 											

			Sig	nal (Operat	ions	5				
Pha	se Combination	1	2	3	4			5	6	7	8
EB	Left					NB	Left				
	Thru	*					Thru				
	Right	*	*		1		Right				
	Peds]	Peds				
WB	Left					SB	Left	*			
	Thru		*				Thru				
	Right						Right	*			
	Peds						Peds				
NB	Right					EB	Right	*			
SB	Right		*			WB	Right				
Gre	en 15	.OA 25	.0A			Gre	en 1	A0.0			
Yel	low/AR 3	.0 3	.0			Yel	low/AR :	3.0			
Сус	le Length: 59	secs	Phase	com	binat	ion	order:	#1 #2	#5		

			Intersect:	ion Perfo	ormance S	Summary			
	Lane	Group:	Adj Sat	v/c	g/C			Approac	ch:
	Mvmts	Cap	Flow	Ratio	Ratio	Delay	LOS	Delay	LOS
EB	T	947	3725	0.705	0.254	14.6	В	6.0	В
	R	3006	3167	0.321	0.949	0.1	A		
WB	T	2368	5588	0.628	0.424	9.0	В	9.0	В
SB	L	300	1770	0.363	0.169	14.4	В	9.1	В
	R	1020	1583	0.084	0.644	2.6	A		
		Int	ersection :	Delay =	7.6 se	c/veh Int	cersec	tion LOS	= B
Lost	: Time/	Cycle, L	= 9.0 s	ec Cri	tical v/	c(x) =	= 0.59	8	

HCM: SIGNALIZED INTERSECTION SUMMARY Version 2.4g 03-07-2001 Center For Microcomputers In Transportation

Streets: (E-W) SR-2 (N-S) I-75 SB Exit
Analyst: TC File Name: BREC05PM.HC9

Area Type: Other 2-7-1 2005 AM

Comment: recommended

=========	=====	=====	=====	-===	=====	====	====	=====	=====		====:	====
	Εa	astbou	ınd	Wes	stboun	.d	No	rthbo	und	Sou	thbo	und
	L	T	R	L	T	R	L	T	R	L	T	R
•												
No. Lanes	0	2	2	0	3	0	0	0	0	1	0	1
Volumes		604	810		1284		ļ			104		82
PHF or PK15		0.95	0.95		0.95					0.95		0.95
Lane W (ft)		12.0	12.0		12.0		1			12.0		12.0
Grade		0			0		1			ĺ	0	
% Heavy Veh		2	2		2		ĺ			2		2
Parking	N	N		N	N		1			N	N	
Bus Stops			0			0						. 0
Con. Peds			0			0	İ		0			0
Ped Button	(Y/N) N		(Y/N) N					(X/N)	N	
Arr Type		3	3		3					3		3
RTOR Vols			0			0						0
Lost Time		3.00	3.00		3.00		1			3.00		3.00
Prop. Share							1					
Prop. Prot.												

	· · · · ·										
	 		Sig	nal	Operat	tions	3				
Phas	se Combination	ı 1	2	3	4			5	6	7	8
EB	Left					NB	Left				
	Thru	*					Thru				
	Right	*	*				Right				
	Peds						Peds				
WB	Left					SB	Left	*			
	Thru		*				Thru				
	Right						Right	*			
	Peds						Peds				
NB	Right					EB	Right	*			
SB	Right		*			WB	Right				
Gre	en 1	5.0A 25	5.0A			Gre	en 1	LO.OA			
Yel	low/AR	3.0	3.0			Yel	low/AR	3.0			
~	la Tanath. E	0 0000	Dhaga		mbins+	ion	ordor.	#1 #1	# =		

Cycle Length: 59 secs Phase combination order: #1 #2 #5

	Lane Mvmts	Group: Cap	Intersect: Adj Sat Flow	ion Perfo v/c Ratio	g/C	Summary Delay	LOS	Approac Delay	h: LOS				
	HVIIICD	cap	1 10 11	Racio	ROCIO	Delay	1100	Deray	1100				
EB	${f T}$	947	3725	0.705	0.254	14.6	В	6.0	В				
	R	3006	3167	0.321	0.949	0.1	A						
WB	T	2368	5588	0.628	0.424	9.0	В	9.0	В				
SB	L	300	1770	0.363	0.169	14.4	В	9.1	В				
	R	1020	1583	0.084	0.644	2.6	A						
		Inte	ersection 1	Delay =	7.6 sed	c/veh Int	ersect	tion LOS	= B				
Lost	Time/	Cycle, L	= 9.0 s	ec Crit	cical v/c	c(x) =	0.59	8					

Center For Microcomputers In Transportation

University of Florida

512 Weil Hall

Gainesville, FL 32611-2083 (904) 392-0378

Streets: (E-W) SR-2

(N-S) I-75 SB Exit

Analyst: TC

File Name: BREC05PM.HC9

Area Type: Other

2-7-1 2005 AM

Comment: recommended

Traffic and Roadway Conditions

	E	astbou	ind	Westbound		.d.	No	rthbo	und	Southbour		ound
	L	${f T}$	R	L	T	R	L	${f T}$	R	L	T	R
No. Lanes	0	2	2	0	3	0	0	0	0	1	0	1
Volumes		604	810		1284					104		82
PHF or PK15		0.95	0.95		0.95					0.95		0.95
Lane W (ft)		12.0	12.0		12.0					12.0		12.0
Grade		0			0					ĺ		0
% Heavy Veh		2	2		2					2		2
Parking	N	N		N	N					N		N
Bus Stops			0			0	ĺ.,					0
Con. Peds	1		0			0			0	Ì		0
Ped Button	(Y/N) N		(Y/N) N		ĺ			(Y/N)	N	
Arr Type		3	3		3					3		3
RTOR Vols	ĺ		0			0	1			İ		0
Lost Time		3.00	3.00		3.00					3.00		3.00

Signal Operations

Phas EB	se Combination Left Thru Right Peds	1 * *	*	3	4	 NB 	Left Thru Right Peds	5	6	7	8
WB	Left Thru Right Peds		*			 SB 	Left Thru Right Peds	*			
NB SB	Right Right		*			 EB WB	Right Right	*			
Gre Yel	=	.0A 25	.0A .0			 Gre Yel	en 10 low/AR 3	.0A .0			

Cycle Length: 59 secs Phase combination order: #1 #2 #5

Streets: (E-W) SR-2

(N-S) I-75 SB Exit

Analyst: TC

File Name: BREC05PM.HC9

Area Type: Other

2-7-1 2005 AM

Comment: recommended

Volume Adjustment Worksheet

				- 		- -					
Direction/ Mvt	Mvt Vol	PHF	Adj Vol	Lane Grp	Lane Grp Vol	No. Ln	Lane Util Fact	Growth Fact	Adj Grp Vol	Prop LT	Prop RT
EB											
Thru	604	0.95	636	T	636	2	1.050	1.000	668	0.00	0.00
Right	810	0.95	853	R	853	2	1.130	1.000	964	0.00	1.00
WB											
Thru	1284	0.95	1352	${f T}$	1352	3	1.100	1.000	1487	0.00	0.00
SB											
Left	104	0.95	109	L	109	1	1.000	1.000	109	1.00	0.00
Right	82	0.95	86	R	86	1	1.000	1.000	86	0.00	1.00
											1.00

Saturation Flow Adjustment Worksheet

Direction /LnGrp	Ideal Sat Flow	No. Lns	f W	f HV	f G	f p	f BB	f A	f RT	f LT	Adj Sat Flow
EB											
T	1900	2	1.00	0.98	1.00	1.00	1.00	1.00	1.00	1.00	3725
R	1900	2	1.00	0.98	1.00	1.00	1.00	1.00	0.85	1.00	3167
WB											
T	1900	3	1.00	0.98	1.00	1.00	1.00	1.00	1.00	1.00	5588
SB											
L	1900	1	1.00	0.98	1.00	1.00	1.00	1.00	1.00	0.95	1770
R	1900	1	1.00	0.98	1.00	1.00	1.00	1.00	0.85	1.00	1583

Streets: (E-W) SR-2

(N-S) I-75 SB Exit

Analyst: TC

File Name: BREC05PM.HC9

Area Type: Other

2-7-1 2005 AM

Comment: recommended

Capacity Analysis Worksheet

	Adj Flow Rate (v)	Adj Sat Flow Rate (s)			Lane Group Capacity (c)		
EB							
Т	668	3725	0.179	0.254	947	0.705	*
R	964	3167	0.304	0.949	3006	0.321	
WB							
T	1487	5588	0.266	0.424	2368	0.628	*
NB							
SB							
L	109	1770	0.062	0.169	300	0.363	*
R	86	1583	0.054	0.644	1020	0.084	
			Sum (v/s) critical	= 0.507		
The section of the section is	/ C 1 - T	0 0					
Lost Time	:/Сусте, L =	9.0 sec	Criti	cal v/c(x)	= 0.598		

Level of Service Worksheet

B. C. C. Called Street	/	-: / G								Delay	
Direction				Adj				Grp	Grp	Ву	ВУ
/LnGrp	Ratio	Ratio	1	Fact	Cap	2	2	Del	LOS	App	App
EB											
${f T}$	0.705	0.254	15.2	0.850	947	16	1.7	14.	6 B	6.0	В
R	0.321	0.949	0.1	0.850	3006	16	0.0	0.3	1 A		
WB											
T	0.628	0.424	10.1	0.850	2368	16	0.4	9.	0 B	9.0	В
NB											
SB											
L	0.363	0.169	16.5	0.850	300	16	0.3	14.	4 B	9.1	В
R	0.084	0.644	3.0	0.850	1020	16	0.0	2.	6 A		
	I	interse	ction 1	Delay :	= 7.	6 sec/	veh In	terse	ction	LOS =	В

Center For Microcomputers In Transportation

Streets: (E-W) SR-2

(N-S) I-75 SB Exit

Analyst: TC

File Name: BRC05PM.HC9

Area Type: Other

2-7-1 2005 PM

Comment: recommended

=========												
	Eastbound		Westbound			No	rthbo	und	Sou	ıthbo	und	
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	2	2	0	3	0	0	0	0	1	0	1
Volumes		826	540		1296					136		118
Lane W (ft)		12.0	12.0		12.0		1			12.0		12.0
RTOR Vols			0			0				1		. 0
Lost Time		3.00	3.00		3.00					3.00		3.00

			Sig	nal C	perat	cions	3				
Pha	se Combination	. 1	2	3	4			5	6	7 .	8
EB	Left					NB	Left				
	Thru	*					Thru				
	Right	*	*		,		Right				
	Peds						Peds				
WB	Left					SB	Left	*			
	Thru		*				Thru				
	Right					1	Right	*			
	Peds						Peds				
NB	Right					EB	Right	*			
SB	Right		*			WB	Right				
Gre	en 15	.OA 25	.0A			Gre	en 1	0.0A			
Yel	low/AR	3.0 3	. 0			Yel	low/AR :	3.0			
Сус	le Length: 59	ecs secs	Phase	coml	oinat:	ion	order:	#1 #2	#5		

	Intersection Performance Summary												
	Lane	Group:	Adj Sat	v/c	g/C			Approac	ch:				
	Mvmts	Cap	Flow	Ratio	Ratio	Delay	LOS	Delay	LOS				
EB	${f T}$	947	3725	0.963	0.254	29.4	D	17.3	С				
	R	3006	3167	0.214	0.949	0.1	A						
WB	${f T}$	2368	5588	0.633	0.424	9.1	В	9.1	В				
SB	L	300	1770	0.477	0.169	15.2	C	9.4	В				
	R	1020	1583	0.122	0.644	2.6	A						
		Inte	ersection	Delay =	12.9 se	c/veh Int	cersec	tion LOS	= B				

Lost Time/Cycle, L = 9.0 sec Critical v/c(x) = 0.701

Center For Microcomputers In Transportation

Streets: (E-W) SR-2

(N-S) I-75 SB Exit File Name: BRC05PM.HC9

Analyst: TC

2-7-1 2005 PM

Area Type: Other Comment: recommended

Togebound | Washanad | Washanad | Carller |

	E	astbo	ınd	Wes	stboun	ıd	Noi	thbo	und	Sout	thbo	und
	L	T	R	L	T	R	L	Т	R	L	T	R
No. Lanes	0	2	2	0	3	0	0	0	0	1	0	1
Volumes		826	540		1296					136		118
PHF or PK15		0.95	0.95		0.95					0.95		0.95
Lane W (ft)		12.0	12.0		12.0					12.0		12.0
Grade	!	0			0						0	
% Heavy Veh		2	2		2					2		2
Parking	N	N		N	N					N	N	
Bus Stops			0			0						0
Con. Peds			0			0	{		0]		0
Ped Button	(Y/N) N		(Y/N) N					(Y/N)	N	
Arr Type		3	3		3		1			3		3
RTOR Vols			0			0						0
Lost Time		3.00	3.00		3.00					3.00		3.00
Prop. Share							1					
Prop. Prot.												

Prop. Proc. | | |

			Sig	gnal	Operat	tions	S				
Pha	se Combination	1	2	3	4			5	6	7	8
EB	Left					NB	Left				
	Thru	*				İ	Thru				
	Right	*	*				Right				
	Peds						Peds				
WB	Left					SB	Left	*			
	Thru		*				Thru				
	Right					ĺ	Right	*			
	Peds					ĺ	Peds				
NB	Right					EB	Right	*			
SB	Right		*			WB	Right				
Gre	en 15	.OA 2	5.0A			Gre	en 10	.0A			
Yel	low/AR 3	. 0	3.0			Yel	low/AR 3	.0			

Cycle Length: 59 secs Phase combination order: #1 #2 #5

			Intersect	ion Perf	ormance	Summary			
	Lane	Group:	Adj Sat	v/c	g/C			Approa	ch:
	Mvmts	Cap	Flow	Ratio	Ratio	Delay	LOS	Delay	LOS
EB	T	947	3725	0.963	0.254	29.4	D	17.3	C
	R	3006	3167	0.214	0.949	0.1	A		
WB	${f T}$	2368	5588	0.633	0.424	9.1	В	9.1	В
SB	L	300	1770	0.477	0.169	15.2	С	9.4	В
	R	1020	1583	0.122	0.644	2.6	A		
		Tnt	orgoation :	Dolast -	12 0 00	altroh Int	-0200	tion TOC	_ D

Intersection Delay = 12.9 sec/veh Intersection LOS = B Lost Time/Cycle, L = 9.0 sec Critical v/c(x) = 0.701

Center For Microcomputers In Transportation

University of Florida

512 Weil Hall

Gainesville, FL 32611-2083 (904) 392-0378

Streets: (E-W) SR-2 Analyst: TC (N-S) I-75 SB Exit File Name: BRC05PM.HC9

Area Type: Other

2-7-1 2005 PM

Comment: recommended

.

Traffic and Roadway Conditions

	Εa	astbou	ınd	Wes	tboun	.d	Noi	thbou	ınd	Sou	thbo	ound
	L	Т	R	L	T	R	L	T	R	L	Т	R
No. Lanes Volumes PHF or PK15 Lane W (ft)	0	2 826 0.95	2 540 0.95 12.0	0	3 1296 0.95 12.0	0	0	0	0	1 136 0.95	0	1 118 0.95
Grade W (10)	! 	0	12.0		0					12.0	(12.0
% Heavy Veh		2	2		2					2		2
Parking	N	N		N	N					N	1	1
Bus Stops			0			0						0
Con. Peds			0			0			0			0
Ped Button	(X/N)) N		(Y/N) N					(X/N)	N	
Arr Type		3	3		3					3		3
RTOR Vols			0			0						0
Lost Time		3.00	3.00	Ì	3.00					3.00		3.00

Signal Operations

		- -				- -					
Phas EB	se Combination Left	1	2	3	4	NB	Left	5	6	7	8
ں ت	Thru	*				IND	Thru				
	Right	*	*			ļ	Right				
	Peds					<u> </u> 	Peds				
WB	Left					SB	Left	*			
	Thru		*			ļ	Thru				
	Right						Right	*			
	Peds					<u> </u>	Peds				
NB	Right					EB	Right	*			
SB	Right		*			WB	Right				
Gree	an 15	.0A 25	Δ0.			Gre	en 10	.0A			
			. 0			ı	low/AR 3				
101.	2011/1111					1	10", AC 3	. 0			

Cycle Length: 59 secs Phase combination order: #1 #2 #5

Streets: (E-W) SR-2 (N-S) I-75 SB Exit
Analyst: TC File Name: BRC05PM.HC9

Area Type: Other 2-7-1 2005 PM

Comment: recommended

Volume Adjustment Worksheet

Direc- tion/ Mvt	Mvt Vol	PHF	Adj Vol	Lane Grp	Lane Grp Vol	No. Ln	Lane Util Fact	Growth Fact	Adj Grp Vol	Prop LT	Prop RT
EB											
Thru	826	0.95	869	${f T}$	869	2	1.050	1.000	912	0.00	0.00
Right WB	540	0.95	568	R	568	2	1.130	1.000	642	0.00	1.00
Thru SB	1296	0.95	1364	T	1364	3	1.100	1.000	1500	0.00	0.00
Left	136	0.95	143	L	143	1	1.000	1.000	143	1.00	0.00
Right	118	0.95	124	R	124	1	1.000	1.000	124	0.00	1.00
					. 						

Saturation Flow Adjustment Worksheet

Ideal Sat Flow	No. Lns	f W	f HV	f G	f p	f BB	f A	f RT	f LT	Adj Sat Flow
										-
1900	2	1.00	0.98	1.00	1.00	1.00	1.00	1.00	1.00	3725
1900	2	1.00	0.98	1.00	1.00	1.00	1.00	0.85	1.00	3167
1900	3	1.00	0.98	1.00	1.00	1.00	1.00	1.00	1.00	5588
1900	1	1.00	0.98	1.00	1.00	1.00	1.00	1.00	0.95	1770
1900	1	1.00	0.98	1.00	1.00	1.00	1.00	0.85	1.00	1583
	Sat Flow 1900 1900 1900	Sat No. Flow Lns 1900 2 1900 2 1900 3 1900 1	Sat No. f Flow Lns W 1900 2 1.00 1900 3 1.00 1900 1 1.00	Sat No. f f HV Flow Lns W HV 21.00 0.98 1900 2 1.00 0.98 1900 3 1.00 0.98 1900 1 1.00 0.98	Sat No. f f f Flow Lns W HV G 1900 2 1.00 0.98 1.00 1900 2 1.00 0.98 1.00 1900 3 1.00 0.98 1.00 1900 1 1.00 0.98 1.00	Sat No. f f f f f p Flow Lns W HV G p 1900 2 1.00 0.98 1.00 1.00 1900 2 1.00 0.98 1.00 1.00 1900 3 1.00 0.98 1.00 1.00 1900 1 1.00 0.98 1.00 1.00	Sat No. f f f f f f f f f f f p BB 1900 2 1.00 0.98 1.00 1.00 1.00 1.00 1900 2 1.00 0.98 1.00 1.00 1.00 1900 3 1.00 0.98 1.00 1.00 1.00 1900 1 1.00 0.98 1.00 1.00 1.00	Sat Flow Lns No. W f HV f G f p f BB A 1900 1900 2 2 1.00 1.00 0.98 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1900 3 1.00 0.98 1.00 1.00 1.00 1.00 1900 1 1.00 0.98 1.00 1.00 1.00 1.00	Sat Flow Lns No. W f HV f G f p 	Sat No. f f </td

Streets: (E-W) SR-2 (N-S) I-75 SB Exit
Analyst: TC File Name: BRC05PM.HC9

Area Type: Other 2-7-1 2005 PM

Comment: recommended

Capacity Analysis Worksheet

	Adj	Adj Sat			Lane Group		
Direction	Flow Rate	Flow Rate	Ratio	Green Ratio	Capacity	v/c	
/LnGrp	(v)	(s)	(v/s)	(g/C)	(c)	Ratio	
EB							
T	912	3725	0.245	0.254	947	0.963	*
R	642	3167	0.203	0.949	3006	0.214	
WB							
T	1500	5588	0.268	0.424	2368	0.633	*
NB							
SB							
L	143	1770	0.081	0.169	300	0.477	*
R	124	1583	0.078	0.644	1020	0.122	
			Sum (v/s) critical	- = 0.594		
Lost Time	/Cycle, L =	9.0 sec		cal v/c(x)			

Level of Service Worksheet

Direction	v/c	g/C		Del Adj	Lane Group			Lane Grp	Lane Grp	_	LOS By
/LnGrp	Ratio	Ratio	1	Fact	Cap	2	2	Del	LOS	App	App
EB											
T	0.963	0.254	16.5	0.850	947	16	15.4	29.	4 D	17.3	С
R	0.214	0.949	0.1	0.850	3006	16	0.0	0.	1 A		
WB											
T	0.633	0.424	10.2	0.850	2368	16	0.4	9.	1 B	9.1	В
NB											
SB											
L	0.477	0.169	16.8	0.850	300	16	0.9	15.	2 C	9.4	В
R	0.122	0.644	3.1	0.850	1020	16	0.0	2.	6 A		
	I	nterse	ction 1	Delay :	= 12.5	9 sec/	veh In	terse	ction	LOS =	В

Center For Microcomputers In Transportation

Streets: (E-W) SR-2

(N-S) I-75 SB Exit

Analyst: TC

File Name: BREC25AM.HC9

Area Type: Other

2-7-1 2025 AM

Comment: recommended

==========	====	=====	=====	====	=====	=====	====	====	=====	=====	====	=====
	Eastbound		Westbound			Northbound			Southbound			
	L	T	R	L	T	R	L	T	R	L	Т	R
No. Lanes	0	2	2	0	3	0	0	0	0	1	0	1
Volumes		1090	1220		2310					240		120
Lane W (ft)		12.0	12.0		12.0					12.0		12.0
RTOR Vols			650			0				ĺ		0
Lost Time		3.00	3.00		3.00					3.00		3.00

			Siq	nal Op	erat	ions	S				
Pha	se Combination	1	2	3	4			5	6	7	8
EB	Left				j	NB	Left				
	Thru	*	*		İ		Thru				
	Right	*	*				Right				
	Peds				į		Peds				
WB	Left					SB	Left	*			
	Thru		*				Thru				
	Right						Right	*			
	Peds						Peds				
NB	Right					EB	Right	*			
SB	Right	*	*		1	WB	Right				*
Gre	en 22	.0A 41	.0A			Gre	en 18	3.0A			
Yel	low/AR 3	.0 3	. 0			Yel	low/AR 3	3.0			
Сус	le Length: 90	secs	Phase	combi	nati	ion	order: ‡	‡1 #2	#5		

			Intersect	ion Perf	ormance	Summary			
	Lane	Group:	Adj Sat	v/c	g/C			Approac	h:
	Mvmts	Cap	Flow	Ratio	Ratio	Delay	LOS	Delay	LOS
EB	T	2732	3725	0.441	0.733	3.1	A	2.0	A
	R	3061	3167	0.221	0.967	0.0	A		
WB	T	2546	5588	1.051	0.456	43.8	E	43.8	E
SB	L	354	1770	0.715	0.200	26.3	D	17.6	С
	R	1531	1583	0.082	0.967	0.0	A		

Intersection Delay = 25.9 sec/veh Intersection LOS = D Lost Time/Cycle, L = 6.0 sec Critical v/c(x) = 0.499

Center For Microcomputers In Transportation

Streets: (E-W) SR-2

(N-S) I-75 SB Exit

Analyst: TC

File Name: BREC25AM.HC9

Area Type: Other 2-7-1 2025 AM Comment: recommended

=========	====:	=====:	=====	====:	=====	=====	=====	====	=====	=====	====	=====
	E	astboı	ınd	Wes	stboun	ıd	No	cthbo	und	Sou	thbo	und
	L	T	R	L	\mathbf{T}	R	L	T	R	L	T	R
No. Lanes	0	2	2	0	3	0	0	0	0	1	0	1
Volumes		1090	1220		2310					240		120
PHF or PK15		0.95	0.95		0.95					0.95		0.95
Lane W (ft)		12.0	12.0	1	12.0					12.0		12.0
Grade		0			. 0						0	
% Heavy Veh		. 2	2	1	2					2		2
Parking	N	N		N	N					N	N	
Bus Stops			0			0						0
Con. Peds			0			0			0			0
Ped Button	(X/N) N		(X/N)) N					(Y/N)	N	
Arr Type		3	3		3					3		3
RTOR Vols			650			0						0
Lost Time		3.00	3.00		3.00					3.00		3.00
Prop. Share							1			ĺ		
Prop. Prot.												

-----Signal Operations Phase Combination 1 2 3 4 | 5 6 7 8 EB Left NB Left Thru Thru Right Right Peds Peds SB Left WB Left Thru Thru Right Right Peds Peds NB Right EB Right SB Right WB Right 22.0A 41.0A Green Green 18.0A 3.0 3.0 Yellow/AR Yellow/AR 3.0 Cycle Length: 90 secs Phase combination order: #1 #2 #5

Intersection Performance Summary
Lane Group: Adj Sat v/c g/C Approach:

	Lane	Group:	Adj Sat	v/c	g/C	_		Approach:		
	Mvmts	Cap	Flow	Ratio	Ratio	Delay	LOS	Delay	LOS	
									-	
EB	T	2732	3725	0.441	0.733	3.1	A	2.0	A	
	R	3061	3167	0.221	0.967	0.0	A			
WB	T	2546	5588	1.051	0.456	43.8	E	43.8	E	
SB	L	354	1770	0.715	0.200	26.3	D	17.6	C	
	R	1531	1583	0.082	0.967	0.0	A			

Intersection Delay = 25.9 sec/veh Intersection LOS = D

Lost Time/Cycle, L = 6.0 sec Critical v/c(x) = 0.499

HCS: Signalized Intersection Version 2.4g _______

03-07-2001 1

Center For Microcomputers In Transportation

University of Florida

512 Weil Hall

Gainesville, FL 32611-2083 (904) 392-0378

Streets: (E-W) SR-2

(N-S) I-75 SB Exit

Analyst: TC

File Name: BREC25AM.HC9

Area Type: Other

2-7-1 2025 AM

Comment: recommended

Traffic and Roadway Conditions

	Eastbound		Westbound			Northbound		und	Southbound		ound	
	L	${f T}$	R	L	${f T}$	R	L,	T	R	L	Т	R
No. Lanes	0	2	2	0	3	0	0	0	0	1	0	1
Volumes	[1090	1220		2310					240		120
PHF or PK15		0.95	0.95		0.95					0.95		0.95
Lane W (ft)		12.0	12.0		12.0					12.0		12.0
Grade		0			0							0
% Heavy Veh		2	2		2					2		2
Parking	N	N		N	N		-			N]	N
Bus Stops			0			0						0
Con. Peds	1		0]		0			0			0
Ped Button	(Y/N) N		(Y/N)) N -					(Y/N)	N	
Arr Type		3	3		3					3		3
RTOR Vols			650]		0				İ		0
Lost Time		3.00	3.00		3.00					3.00		3.00

Signal Operations

						<u>.</u>						
Ph EB	ase Combination Left	1	2		3	4	 NB	Left	5	6	7	8
	Thru	*	*				İ	Thru				
	Right	*	*					Right				
	Peds							Peds				
WB	Left Thru Right Peds		*				SB	Left Thru Right Peds	*			
NB SB	_ ~	*	*				EB WB	Right Right	*			
		.0A	41.02	Δ.			 Gre Yel	en 18 low/AR 3	.0A			

Cycle Length: 90 secs Phase combination order: #1 #2 #5

Streets: (E-W) SR-2 (N-S) I-75 SR Exit

Streets: (E-W) SR-2 (N-S) I-75 SB Exit
Analyst: TC File Name: BREC25AM

Analyst: TC File Name: BREC25AM.HC9
Area Type: Other 2-7-1 2025 AM

Comment: recommended

Volume Adjustment Worksheet

Direction/ Mvt	Mvt Vol	PHF	Adj Vol	Lane Grp	Lane Grp Vol	No. Ln	Lane Util Fact	Growth Fact	Adj Grp Vol	Prop LT	Prop RT
EB											
Thru	1090	0.95	1147	T	1147	2	1.050	1.000	1204	0.00	0.00
Right WB	1220	0.95	600	R	600	2	1.130	1.000	678	0.00	1.00
Thru SB	2310	0.95	2432	T	2432	3	1.100	1.000	2675	0.00	0.00
Left	240	0.95	253	L	253	1	1.000	1.000	253	1.00	0.00
Right	120	0.95	126	R 	126	1	1.000	1.000	126	0.00	1.00

Saturation Flow Adjustment Worksheet

	rection nGrp	Ideal Sat Flow	No. Lns	f W	f HV	£ G	f p	f BB	f A	f RT	f LT	Adj Sat Flow
EE	}											
	T	1900	2	1.00	0.98	1.00	1.00	1.00	1.00	1.00	1.00	3725
	R	1900	2	1.00	0.98	1.00	1.00	1.00	1.00	0.85	1.00	3167
WE	3								2.00	0.03	1.00	3107
	${f T}$	1900	3	1.00	0.98	1.00	1.00	1.00	1.00	1.00	1.00	5500
SE	3							2.00	1.00	1.00	1.00	2200
	L	1900	1	1.00	0.98	1.00	1.00	1.00	1.00	1.00	n 95	1770
	R	1900	7	1 00	0 00	7 00	1 00					
	м	1900	1	1.00	0.98	1.00	1.00	1.00	1.00	0.85	1.00	1583

Streets: (E-W) SR-2 (N-S) I-75 SB Exit

Analyst: TC File Name: BREC25AM.HC9

Area Type: Other 2-7-1 2025 AM

Comment: recommended

Capacity Analysis Worksheet

Direction /LnGrp	Adj Flow Rate (v)	Adj Sat Flow Rate (s)	· · · · · · · · · · · · · · · · · · ·	Green Ratio (g/C)	Lane Group Capacity (c)	
EB						
T	1204	3725	0.323	0.733	2732	0.441 *
R	678	3167	0.214	0.967	3061	0.221
WB			0.211	0.507	2001	0.221
T	2675	5588	0.479	0.456	2546	1.051
NB						
SB						
L	253	1770	0.143	0.200	354	0.715 *
R	126	1583	0.080	0.967	1531	0.082
		2505				0.082
Toot Mimo	/G1- T	<i>c</i> 0		v/s) critical		
LOSC TIME	e/Cycle, L =	6.0 sec	Criti	cal v/c(x)	= 0.499	

Level of Service Worksheet

Direction	v/c	g/C	d	Adj	Group	d	Delay d	Grp	Grp	Bv	LOS By
/LnGrp	Ratio	Ratio	1	Fact	Cap	2	2	Del	LOS	qqA	qqA
EB											
T	0.441	0.733	3.6	0.850	2732	16	0.1	3.3	1 A	2.0	A
R	0.221	0.967	0.0	0.850	3061	16	0.0	0.0	0 A		
WB											
T	1.051	0.456	18.6	0.850	2546	16	28.0	43.8	в Е	43.8	E
NB											
SB											
L	0.715	0.200	25.5	0.850	354	16	4.6	26.3	3 D	17.6	С
R		0.967									
	I	interse	ction 1	Delay :	= 25.	9 sec/	veh In	terse	ction	LOS =	D

HCM: SIGNALIZED INTERSECTION SUMMARY Version 2.4g 03-07-2001 Center For Microcomputers In Transportation

Streets: (E-W) SR-2

(N-S) I-75 SB Exit

Analyst: TC

•

File Name: BRC25PM.HC9

Area Type: Other 2-7-1 2025 PM

Comment: recommended

=======================================													
	Eastbound			Westbound			No	rthbo	und	Sou	Southbound		
	L 	T	R	L	T	R	L	Т	R	L	T	R	
No. Lanes Volumes Lane W (ft) RTOR Vols Lost Time	0		2 810 12.0 150 3.00	0	3 2090 12.0	0	0	0	0	1 190 12.0	0	1 220 12.0 0	
LOSC TIME	 	3.00	3.00		3.00					3.00		3.00	

			Sig	mal	Opera	ation	.s				
Pha	se Combination	n 1	2	3	4	1		5	6	7	8
EB	Left					NB	Left				J
	Thru	*	*			İ	Thru				
	Right	*	*			į	Right				
	Peds					İ	Peds				
WB	Left					SB	Left	*			
	Thru		*			İ	Thru				
	Right					ĺ	Right	*			
	Peds					ĺ	Peds				
NB	Right					EB	Right	*			
SB	Right		*			WB	Right				
Gre		7.0A 35	.0A			Gre	en 14	.OA			
	·	3.0 3	.0			Yel	low/AR 3	. 0			
Сус	le Length: 8	5 secs	Phase	cor	nbinat	ion	order: #	1 #2	#5		

	Lane	Group:	Intersect: Adj Sat	ion Perfo v/c	ormance q/C	Summary		Approach:			
	Mvmts	Cap	Flow	Ratio	Ratio	Delay	LOS	Delay	LOS		
EB	${f T}$	2849	3725	0.628	0.765	3.2	A	2.3	А		
	R	3055	3167	0.257	0.965	0.1	A				
WB	${f T}$	2301	5588	1.052	0.412	45.2	E	45.2	E		
SB	L	291	1770	0.686	0.165	26.1	·D	14.7	В		
	R	969	1583	0.240	0.612	4.9	A		_		
		Tnt	ercection 1	001077	22 4	- / 1· -					

HCM: SIGNALIZED INTERSECTION SUMMARY Version 2.4g 03-07-2001 Center For Microcomputers In Transportation

Streets: (E-W) SR-2 Analyst: TC

(N-S) I-75 SB Exit File Name: BRC25PM.HC9

Area Type: Other

2-7-1 2025 PM

Comment: recommended

=========												
	E	astbo	und	We	stboun	ıd	No	rthbo	und	Sou	thbo	und
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	2	2	0	3	0	0	0	0	1	0	1
Volumes		1620	810		2090		İ			190		220
PHF or PK15		0.95	0.95		0.95		İ			0.95		0.95
Lane W (ft)		12.0	12.0		12.0		İ			12.0		12.0
Grade		0		ĺ	0		İ			i	0	
% Heavy Veh		2	2	ĺ	2					2	Ū	2
Parking	N	N		N	N		i			N	N	_
Bus Stops			0			0	İ			1		0
Con. Peds			0			0	İ		0	1		0
Ped Button	(Y/N) N		(Y/N) N		İ			(Y/N)	N	Ü
Arr Type		3	3	ĺ	3		İ			3		3
RTOR Vols			150	Ì		0	İ					0
Lost Time		3.00	3.00	Ì	3.00		Í			3.00		3.00
Prop. Share				Ì			ĺ					3.00
Prop. Prot.				İ			İ					
				•			•			1		

			Sig	nal	Opera	ation	.s				
Pha	se Combinatior	1	2	3	4			5	6	7	8
EB	Left					NB	Left				
	Thru	*	*				Thru				
	Right	*	*			ĺ	Right				
	Peds					İ	Peds				
WB	Left					SB	Left	*			
	Thru		*			ĺ	Thru				
	Right					İ	Right	*			
	Peds					Ì	Peds				
NB	Right					EB	Right	*			
SB	Right		*			WB	Right				
Gre	en 27	.OA 35	.0A			Gre	_	.0A			
Yel	low/AR 3	.0 3	. 0			Yel	low/AR 3	. 0			
Сус	le Length: 85	secs	Phase	com	winat		order: #		#5		

			Intersect		ormance	Summary			
	Lane	Group:	Adj Sat	v/c	g/C			Approac	ch:
	Mvmts	Cap	Flow	Ratio	Ratio	Delay	LOS	Delay	LOS
EB	T	2849	3725	0.628	0.765	3.2	A	2.3	А
	R	3055	3167	0.257	0.965	0.1	A		
WB	T	2301	5588	1.052	0.412	45.2	E	45.2	E
SB	L	291	1770	0.686	0.165	26.1	D	14.7	В
	R	969	1583	0.240	0.612	4.9	A		
		Inte	ersection	Delay =	22.4 se	c/veh Int	ersect	ion LOS	- C

Intersection Delay = 22.4 sec/veh Intersection LOS = C Lost Time/Cycle, L = 6.0 sec Critical v/c(x) = 0.639

Center For Microcomputers In Transportation

University of Florida

512 Weil Hall

Analyst: TC

Gainesville, FL 32611-2083 (904) 392-0378

Streets: (E-W) SR-2

(N-S) I-75 SB Exit File Name: BRC25PM.HC9

Area Type: Other

2-7-1 2025 PM

Comment: recommended

Traffic and Roadway Conditions

	Ea	astbo	and	Wes	stboun	ıd İ	Nor	thbo	ınd	Sou	thh	ound
	L	T	R	L	T	R	L	T	R	l L	T	R
·												
No. Lanes	0	2	2	0	3	0	0	0	0	1	0	1
Volumes		1620	810		2090					190		220
PHF or PK15		0.95	0.95		0.95		Ì			0.95		0.95
Lane W (ft)		12.0	12.0		12.0					12.0		12.0
Grade		0			0					İ	()
% Heavy Veh		2	. 2		2					2		2
Parking	N	N		N	N					N	1	1
Bus Stops	ļ		0			0				İ		0
Con. Peds			0			0			0	j		0
Ped Button	(Y/N)) N		(Y/N)) N					(Y/N)	N	
Arr Type		3	3		3					3		3
RTOR Vols	[150			0				ĺ		0
Lost Time		3.00	3.00		3.00					3.00		3.00

Signal Operations

_											
	Phase Combinatior IB Left	1 1	2	3	4	 NB	Left	5	6	7	8
	Thru	*	*			İ	Thru				
	Right Peds	*	*				Right Peds				
V	NB Left Thru Right Peds		*			SB	Left Thru Right Peds	*			
	IB Right SB Right		*			 EB WB	Right Right	*			
		7.0A 3	5.0A 3.0			 Gre Yel	en 14 low/AR 3	.0A .0			

Cycle Length: 85 secs Phase combination order: #1 #2 #5

Streets: (E-W) SR-2 Analyst: TC (N-S) I-75 SB Exit File Name: BRC25PM.HC9

Area Type: Other 2-7-1 2025 PM

Comment: recommended

Volume Adjustment Worksheet

Direction/ Mvt	Mvt Vol	PHF	Adj Vol	Lane Grp	Lane Grp Vol	No. Ln	Lane Util Fact	Growth Fact	Adj Grp Vol	Prop LT	Prop RT
EB											
Thru	1620	0.95	1705	${f T}$	1705	2	1.050	1.000	1790	0.00	0.00
Right	810	0.95	695	R	695	2	1.130	1.000	785	0.00	1.00
WB									, , , ,		
Thru	2090	0.95	2200	Т	2200	3	1.100	1.000	2420	0.00	0.00
SB				_	2200		1.100	1.000	2 120	0.00	0.00
Left	190	0.95	200	L	200	1	1.000	1.000	200	1.00	0.00
Right	220	0.95	232	R	232	1	1.000	1.000	232	0.00	1.00
9110			232				1.000	1.000	434	0.00	1.00

Saturation Flow Adjustment Worksheet

						. _					
Direction /LnGrp	Ideal on Sat Flow	No. Lns	f W	f HV	f G	f p	f BB	f A	f RT	f LT	Adj Sat Flow
EB											
T	1900	2	1.00	0.98	1.00	1.00	1.00	1.00	1.00	1.00	3725
R	1900	2	1.00	0.98	1.00	1.00	1.00	1.00	0.85	1.00	3167
WB											
Т	1900	3	1.00	0.98	1.00	1.00	1.00	1.00	1.00	1 00	5588
SB		_				±. 00	1.00	1.00	1.00	1.00	2200
L	1900	1	1.00	0.98	1.00	1.00	1.00	1.00	1.00	0 05	1770
		_			1.00	1.00	1.00	1.00	1.00	0.95	1770
R	1900	1	1.00	0.98	1.00	1.00	1.00	1.00	0.85	1.00	1583

Streets: (E-W) SR-2 (N-S) I-75 SB Exit
Analyst: TC File Name: BRC25PM.HC9

Area Type: Other 2-7-1 2025 PM

Comment: recommended

Capacity Analysis Worksheet

	Adj	Adj Sat	Flow		Lane Group	
	Flow Rate		Ratio	Green Ratio		
/LnGrp	(v)	(s)	(v/s)	(g/C)	(c)	Ratio
 EB						
T	1790	3725	0.480	0.765	2849	0.628
R	785	3167	0.248	0.965	3055	0.257
WB						
${f T}$	2420	5588	0.433	0.412	2301	1.052
NB						
SB						
L	200	1770	0.113	0.165	291	0.687
R	232	1583	0.147	0.612	969	0.239
			Sum (v/s) critical	l = 0.593	
Lost Time	/Cycle, L =	6.0 sec	Criti	cal v/c(x)	= 0.639	

Level of Service Worksheet

						- 		- 			
Direction			d	Adj	Lane Group		Delay d		Lane Grp	_	LOS By
/LnGrp	Ratio	Ratio	1	Fact	Cap	2	2	_	LOS	_	qqA
EB											
T	0.628	0.765	3.4	0.850	2849	16	0.3	3.2	2 A	2.3	A
R	0.257	0.965	0.1	0.850	3055	16	0.0	0.3	1 A		
WB											
T	1.052	0.412	19.0	0.850	2301	16	29.0	45.2	2 E	45.2	E
NB											
SB											
L	0.686	0.165	25.4	0.850	291	16	4.5	26.	1 D	14.7	В
R	0.240	0.612	5.7	0.850	969	16	0.0	4.9	9 A		
	I	Interse	ction 1	Delay :	= 22.4	sec/	veh In	cerse	ction	LOS =	C

HCM: SIGNALIZED INTERSECTION SUMMARY Version 2.4g 03-07-2001 Center For Microcomputers In Transportation

Streets: (E-W) SR-2

(N-S) Exit Ramp

Analyst: TC

File Name: INTC05AM.HC9

Area Type: CBD 1-30-1 AM

Comment: 2005

	Ea	stbo	und	We	stbou:	nd	No	rthbou	ınd	Sot	ıthbou	ind
	L	T	R	L	${f T}$	R	L	T	R	L	T	R
No. Lanes	2	0	2	0	0	0	0	2 <	0	1	2	0
Volumes	540		490				İ	1484	136	118	590	
Lane W (ft)	12.0		12.0				ĺ	12.0		12.0	12.0	
RTOR Vols	ĺ		0				į		Ō			0
Lost Time	3.00		3.00					3.00	3.00	3.00	3.00	_
RTOR Vols	3.00		- !						0 3.00			0

			Sig	nal O	perat	cions	S				
Pha	se Combinatio	n 1	2	3	4			5	6	7	8
EB	Left	*				NB	Left				
	Thru					j	Thru	*			
	Right	* '				İ	Right	* *			
	Peds					İ	Peds				
WB	Left					SB	Left	*	*		
	Thru					İ	Thru	*			
	Right					İ	Right				
	Peds					İ	Peds				
NB	Right					EB	Right		*		
SB	Right					WB	Right				
Gre	en 1	.5.0A				Gre	en 4	15.0A	5.0A		
Yel	.low/AR	3.0				Yel	low/AR	3.0	3.0		
Сус	le Length: 7	4 secs	Phase	comb	oinat:	ion	order:	#1 #5	#6		

	Lane Mvmts	Group: Cap	Intersect Adj Sat Flow	ion Perf v/c Ratio	ormance S g/C Ratio	Summary Delav	LOS	Approac Delay	ch: Los
					1100010		200	Delay	TOD
EB	L	583	2875	1.004	0.203	48.7	E	32.9	D
	R	800	2573	0.729	0.311	17.0	С		
NB	TR	1817	2988	0.985	0.608	22.5	C	22.5	С
SB	L	238	1438	0.521	0.716	16.7	С	6.6	В
	${f T}$	1841	3027	0.354	0.608	4.7	A		
		Inte	ersection	Delay =	22.4 se	c/veh Int	tersec	tion LOS	= C

Lost Time/Cycle, L = 6.0 sec Critical v/c(x) = 0.914

HCM: SIGNALIZED INTERSECTION SUMMARY Version 2.4g 03-07-2001

Center For Microcomputers In Transportation

Streets: (E-W) SR-2

(N-S) Exit Ramp

Analyst: TC

File Name: INTC05AM.HC9

1-30-1 AM

Area Type: CBD Comment: 2005

==========			-=====		-===	=====	=====	====:	=====			====
	Ea	stboı	ınd	Wes	stbou	nd	Not	cthbor	ınd	Sot	ıthbou	ınd
	L	${f T}$	R	L	T	R	L	T	R	L	T	R.
No. Lanes	2	0	2	0	0	0	0	2 .	< 0	1	2	0
Volumes	540		490					1484	136	118	590	
PHF or PK15	0.95		0.95					0.95	0.95	0.95	0.95	
Lane W (ft)	12.0		12.0					12.0		12.0	12.0	
Grade	}	0						0			0	
% Heavy Veh	13		13					13	13	13	13	
Parking	N	N	į				N	N		N	N	
Bus Stops			0				1		0	ĺ		0
Con. Peds			0			0	İ		0	İ	**.	0
Ped Button	(Y/N)	N					(Y/N) N		(Y/N) N	
Arr Type	3		3					3		3	3	
RTOR Vols			0						0	Ì		0
Lost Time	3.00		3.00				İ	3.00	3.00	3.00	3.00	
Prop. Share							1			Ì		
Prop. Prot.							ĺ			İ		

	Signal Operations												
Phas	se Combinatio	on 1	2	3	4			5	6	7	8		
EB	Left	*				NB	Left						
	Thru					Ì	Thru	*					
	Right	*					Right	*					
	Peds					j	Peds						
WB	Left					SB	Left	*	*				
	Thru					İ	Thru	*					
	Right					İ	Right						
	Peds					İ	Peds						
NB	Right					EB	Right		*				
SB	Right					WB	Right						
Gre	en	15.0A				Gre	_	45.0A	5.0A				
Yel	low/AR	3.0				Yel	low/AR	3.0	3.0				
Сус	le Length:	74 secs	Phase	e cor	mbinat			#1 #5	#6				

			Intersect:	ion Perf	ormance S	Summary			
	Lane	Group:	Adj Sat	v/c	g/C	_		Approa	ch:
	Mvmts	Cap	Flow	Ratio	Ratio	Delay	LOS	Delay	LOS
EB,	L	583	2875	1.004	0.203	48.7	E	32.9	D
	R	800	2573	0.729	0.311	17.0	C		
NB	TR	1817	2988	0.985	0.608	22.5	C	22.5	С
SB	L	238	1438	0.521	0.716	16.7	С	6.6	В
	T	1841	3027	0.354	0.608	4.7	A		
		Inte	ersection 1	Delay =	22.4 sed	c/veh Int	ersect	tion LOS	= C
T	mi /	O1 - T	<i>-</i> 0 -	~ ·	/	/ \		_	

Lost Time/Cycle, L = 6.0 sec Critical v/c(x) = 0.914

Center For Microcomputers In Transportation

University of Florida

512 Weil Hall

Gainesville, FL 32611-2083 (904) 392-0378

Streets: (E-W) SR-2

(N-S) Exit Ramp

Analyst: TC File Name: INTC05AM.HC9

Area Type: CBD 1-30-1 AM

Comment: 2005

Traffic and Roadway Conditions

	Eastbound		Westbound		Northbound			Sou	ıthbou	.nd		
:	L	Т	R	L	T	R	L	T	R	L	T	R
No. Lanes	2	0	2	0	0	0	0	2 .	< 0	1	2	0
Volumes	540		490					1484	136	118	590	
PHF or PK15	0.95		0.95				İ	0.95	0.95	0.95	0.95	
Lane W (ft)	12.0		12.0					12.0		12.0	12.0	
Grade		0						0			0	
% Heavy Veh	13		13					13	13	13	13	
Parking	N	N					N	N		N	N	
Bus Stops			0						0			0
Con. Peds			0			0			0			0
Ped Button	(X/N)	N					(Y/N) N		(Y/N)) N	
Arr Type	3		3					3		3	. 3	
RTOR Vols			0						0	Ì		0
Lost Time	3.00		3.00					3.00	3.00	3.00	3.00	

Signal Operations

	se Combination		2	3	4		5	6	7	8
EB	Left	*				NB Left				
	Thru					Thru	*			
	Right	*				Right	*			
	Peds					Peds				
WB	Left					SB Left	*	*		
	Thru					Thru	*			
	Right					Right				
	Peds					Peds				
	reus					Peas				
NB	Right					EB Right		*		
SB	Right					WB Right				
Gre	en 15	.0A				Green 4	5.0A	5.0A		
Yel	low/AR 3	. 0				Yellow/AR	3.0	3.0		

Cycle Length: 74 secs Phase combination order: #1 #5 #6

Streets: (E-W) SR-2

(N-S) Exit Ramp

Analyst: TC Area Type: CBD

File Name: INTC05AM.HC9

1-30-1 AM

Comment: 2005

Volume Adjustment Worksheet

Direction/	Mvt		Adj	Lane	Lane Grp	No.	Lane Util	Growth	Adj Grp	Prop	Prop
Mvt	Vol	PHF	Vol	Grp	Vol	Ln	Fact	Fact	Vol	LT	RT
EB											
Left	540	0.95	568	L	568	2	1.030	1.000	585	1.00	0.00
Right	490	0.95	516	R	516	2	1.130	1.000	583	0.00	1.00
NB											
Thru	1484	0.95	1562	TR	1705	2	1.050	1.000	1790	0.00	0.08
Right	136	0.95	143								
SB											
Left	118	0.95	124	L	124	1	1.000	1.000	124	1.00	0.00
Thru	590	0.95	621	T	621	2	1.050	1.000	652	0.00	0.00
		. 									

Saturation Flow Adjustment Worksheet

Dir /Ln	ection Grp	Ideal Sat Flow	No. Lns	f W	f HV	f G	f p	f BB	f A	f RT	f LT	Adj Sat Flow
EB												
	L	1900	2	1.00	0.88	1.00	1.00	1.00	0.90	1.00	0.95	2875
	R	1900	2	1.00	0.88	1.00	1.00	1.00	0.90	0.85	1.00	2573
NB												
	TR	1900	2	1.00	0.88	1.00	1.00	1.00	0.90	0.99	1.00	2988
SB											0.09	135
	L	1900	1	1.00	0.88	1.00	1.00	1.00	0.90	1.00	0.95	1438
	T	1900	2	1.00	0.88	1.00	1.00	1.00	0.90	1.00	1.00	3027

HCM: SIGNALIZED INTERSECTION SUMMARY Version 2.4g 03-07-2001

Center For Microcomputers In Transportation

Streets: (E-W) SR-2

(N-S) Exit Ramp

Analyst: TC

File Name: INTC05PM.HC9

Area Type: CBD 1-30-1 PM

Comment: 2005

=========	=====	=====	====	=====	====	=====:	====:	=====	=====		=====	====
	Eastbound		Wes	tbou	nd	No:	rthbou	ınd	Soi	ıthbou	ınd	
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	2	0	2	0	0	0	0	2 <	< 0	1	2	0
Volumes	810		740					976	104	82	880	
Lane W (ft)	12.0		12.0					12.0		12.0	12.0	
RTOR Vols	İ		0						0			0
Lost Time	3.00	;	3.00					3.00	3.00	3.00	3.00	

Signal Operations													
nation 1	2	. 3	4			- 5	6	7	8				
*				NB	Left								
					Thru	*							
*					Right	*							
					Peds								
				SB	Left	*	*						
				1	Thru	*							
					Right	:							
					Peds								
				EB	Right	:	*						
				WB	Right	<u>-</u>							
25.0A				Gre	en	35.0A	5.0A						
ellow/AR 3.0				Yellow/AR 3.0 3.0									
•	* 25.0A	ination 1 2 * * 25.0A	ination 1 2 3 * * * 25.0A	ination 1 2 3 4 * * * 25.0A	Ination 1 2 3 4 NB	ination 1 2 3 4 NB Left * NB Left Thru * Right Peds SB Left Thru Right Peds Peds EB Right WB Right Green	### NB Left Thru * Right * Peds SB Left * Thru * Right Peds SB Left Peds Right Peds EB Right WB Right WB Right WB Right Green 35.0A	NB Left	Ination 1 2 3 4 5 6 7 * NB Left Thru * Right * Peds SB Left * * Thru * Right Peds EB Right WB Right 25.0A Green 35.0A 5.0A				

Cycle Length: 74 secs Phase combination order: #1 #5 #6

			-			_			
	Lane Mvmts	Group: Cap	Intersect: Adj Sat Flow	v/c Ratio	ormance s g/C Ratio	Delay	TOC	Approac	
	MVIIICS	cap	LIOW	Racio	Racio	Deray	LOS	Delay	LOS
EB	L	971	2875	0.905	0.338	23.6	C	18.5	С
	R	1147	2573	0.767	0.446	13.4	В		
NB	TR	1411	2983	0.846	0.473	14.6	В	14.6	B
SB	L	237	1438	0.363	0.581	13.7	В	11.0	В
	${f T}$	1432	3027	0.679	0.473	10.7	В		
		Int	ersection	Delay =	15.3 se	c/veh Int	cersec	tion LOS	= C

Lost Time/Cycle, L = 6.0 sec Critical v/c(x) = 0.888

HCM: SIGNALIZED INTERSECTION SUMMARY Version 2.4g 03-07-2001

Center For Microcomputers In Transportation

Streets: (E-W) SR-2

(N-S) Exit Ramp

Analyst: TC

File Name: INTC05PM.HC9

Area Type: CBD 1-30-1 PM

Comment: 2005

	Ea	stboı	und	Wes	tbou	ınd	Nor	thbou	ınd	Sou	ıthbou	ınd	
	L	T	R	L	${f T}$	R	L	T	R	L	Т	R	
No. Lanes	2	0	2	0	0	0	0	2 <	: 0	1	2	0	
Volumes	810		740					976	104	82	880		
PHF or PK15	0.95		0.95					0.95	0.95	0.95	0.95		
Lane W (ft)	12.0		12.0					12.0		12.0	12.0		
Grade		0						0			0		
% Heavy Veh	13		13					13	13	13	13		
Parking	N	N					N	N		N	N		
Bus Stops	ļ		0						0			0	
Con. Peds			0			0			0			0	
Ped Button	(Y/N)	N					(Y/N)	N		(Y/N)	N		
Arr Type	3		3				'	3		3	3		
RTOR Vols			0						0			0	
	3.00		3.00					3.00	3.00	3.00	3.00		
Prop. Share	:			ļ						1			
Prop. Prot.													
Diseas Cambi		_		Signa	-	eratio	ns						

	•		Sig	nal Op	erat	ions	5				
Phas	se Combinati	on 1	2	3	4			5	6	7	8
EB	Left	*			ĺ	NB	Left				
	Thru				Ì		Thru	*			
	Right	*			İ		Right	*			
	Peds				ĺ		Peds				
WB	Left					SB	Left	*	*		
	Thru				ĺ		Thru	*			
	Right				-		Right				
	Peds						Peds				
NB	Right				ĺ	EB	Right		*		
SB	Right				İ	WB	Right				
Gre	en	25.0A			1	Gre	en 3	35.0A	5.0A		
Yel	low/AR	3.0			ĺ	Yel	low/AR	3.0	3.0		
Сус	le Length:	74 secs	Phase	combi	nati	on o	order:	#1 #5	#6		

------Intersection Performance Summary Lane Group: Adj Sat v/c g/C Approach: Mvmts Cap Flow Ratio Ratio Delay LOS Delay LOS 2875 0.905 0.338 23.6 C 18.5 2573 0.767 0.446 13.4 B ____ ____ L 971 EB 1147 R 1411 TR NB 2983 0.846 0.473 14.6 B 14.6 В 237 1438 0.363 0.581 13.7 B 11.0 1432 3027 0.679 0.473 10.7 B SB L Intersection Delay = 15.3 sec/veh Intersection LOS = C

Lost Time/Cycle, L = 6.0 sec Critical v/c(x) = 0.888

Center For Microcomputers In Transportation

University of Florida

512 Weil Hall

Gainesville, FL 32611-2083 (904) 392-0378

Streets: (E-W) SR-2

(N-S) Exit Ramp Analyst: TC File Name: INTC05PM.HC9

Area Type: CBD 1-30-1 PM

Comment: 2005

Traffic and Roadway Conditions

	Eas	stboı	ınd	Wes	stbou	nd	Nor	thbou	ınd	Sou	ıthbou	nd
!	L	T	R	L	T	R	L	T	R	L	T	R
•												
No. Lanes	2	0	2	0	0	0	0	2 <	< 0	1	2	0
Volumes	810		740				ļ	976	104	82	880	
PHF or PK15	0.95		0.95				1	0.95	0.95	0.95	0.95	
Lane W (ft)	12.0		12.0					12.0		12.0	12.0	
Grade		0						0			0	
% Heavy Veh	13		13					13	13	13	13	
Parking	N	N					N	N		N	N	
Bus Stops			0						0			0
Con. Peds			0			0			0			0
Ped Button	(X/N)	N					(Y/N)) N		(Y/N)	N	
Arr Type	3		3					3		3	3	
RTOR Vols			0						0			0
Lost Time	3.00		3.00					3.00	3.00	3.00	3.00	

Signal Operations

Pha EB	se Combination Left	. 1	2	3	4	 NB	Left	5	6	7	8
	Thru					į	Thru	*			
	Right	*					Right	*			
	Peds						Peds				
	T . E.										
WB	Left					SB	Left	*	*		
	Thru						Thru	*			
	Right						Right				
	Peds					İ	Peds				
NB	Right					EB	Right		*		
SB	Right					WB	Right				
Gre	en 25	.0A				Gre	en 3	5.0A	5.0A		
Yel	low/AR 3	. 0				Yel	low/AR	3.0	3.0		

Cycle Length: 74 secs Phase combination order: #1 #5 #6

Streets: (E-W) SR-2 (N-S) Exit Ramp

Analyst: TC File Name: INTC05PM.HC9

Area Type: CBD 1-30-1 PM

Comment: 2005

Volume Adjustment Worksheet

Direction/ Mvt	Mvt Vol	PHF	Adj Vol	Lane Grp	Lane Grp Vol	No. Ln	Lane Util Fact	Growth Fact	Adj Grp Vol	Prop LT	Prop RT
EB											
Left	810	0.95	853	L	853	2	1.030	1.000	879	1.00	0.00
Right	740	0.95	779	R	779	2	1.130	1.000	880	0.00	1.00
NB											
Thru	976	0.95	1027	TR	1136	2	1.050	1.000	1193	0.00	0.10
Right	104	0.95	109								
SB											
Left	82	0.95	86	L	86	1	1.000	1.000	86	1.00	0.00
Thru	880	0.95	926	${f T}$	926	2	1.050	1.000	972	0.00	0.00
									- · -		

Saturation Flow Adjustment Worksheet

	ection Grp	Ideal Sat Flow	No. Lns	f W	f HV	f G·	f p	f BB	f A	f RT	f LT	Adj Sat Flow
EB												
	L	1900	2	1.00	0.88	1.00	1.00	1.00	0.90	1.00	0.95	2875
	R	1900	2	1.00	0.88	1.00	1.00	1.00	0.90	0.85	1.00	2573
NB												
	TR	1900	. 2	1.00	0.88	1.00	1.00	1.00	0.90	0.99	1.00	2983
SB											0.11	173
	L	1900	1	1.00	0.88	1.00	1.00	1.00	0.90	1.00	0.95	1438
	T	1900	2	1.00	0.88	1.00	1.00	1.00	0.90	1.00	1.00	3027

HCM: SIGNALIZED INTERSECTION SUMMARY Version 2.4g 03-07-2001

Center For Microcomputers In Transportation

Streets: (E-W) SR-2

(N-S) Exit Ramp

Analyst: TC File Name: INTC25AM.HC9

Area Type: CBD 1-30-1 AM

Comment: 2025

	=====	====	=====	=====	=====	=====						
!	Ea	stbo	und	Wes	stbou	ınd	Nor	thbo	und	Sou	ıthbou	ınd
	L	T	R	L	T	R	L	T	R	L	T	R
:												
No. Lanes	2	0	2	0	0	0	0	2	< 1	1	2	0
Volumes	810		860				İ	2750	190	220	1110	
Lane W (ft)	12.0		12.0					12.0	12.0	12.0	12.0	
RTOR Vols			0				İ		100	İ		0
Lost Time	3.00		3.00				İ	3.00	3.00	3.00	.3.00	
			5	Signal	l Ope	eratio	ns					
Phase Combin	nation	1	2	3		4			5	6	7	8
EB Left		*				NE	left	:				
Thru						i	Thru	1	*			
Right		*				j	Righ	ıt	*			
Peds						İ	Peds	3				

WB Left SB Left Thru Thru Right Right Peds Peds NB Right EB Right SB Right WB Right Green 25.0A Green 40.0A 6.0A Yellow/AR 3.0 Yellow/AR 3.0 3.0

Cycle Length: 80 secs Phase combination order: #1 #5 #6

Intersection Performance Summary Lane Group: Adj Sat v/c g/C Approach: Mvmts Cap Flow Ratio Ratio Delay LOS Delay LOS ------------ ----898 2875 0.978 0.313 36.2 D EB30.0 D R 1094 2573 0.936 0.425 24.6 C 3027 2.009 0.500 * *
1286 0.148 0.500 7.0 B
1438 0.979 0.613 60.8 F
3027 0.810 0.500 13.3 B * TR 1514 NBR В 643 237 SB L 20.8 1514 Intersection Delay = * (sec/veh) Intersection LOS = * (g/C)*(V/c) is greater than one. Calculation of D1 is infeasible.

(9/6/ (4/6/ 15 Sieucci enum one. Calculation of Di 15 inicasible.

HCM: SIGNALIZED INTERSECTION SUMMARY Version 2.4g

Center For Microcomputers In Transportation

Streets: (E-W) SR-2

(N-S) Exit Ramp

Analyst: TC

File Name: INTC25AM.HC9

Area Type: CBD 1-30-1 AM

Comment: 2025

	Ea	stbo	and	Wes	stbou	ınd	Nor	thbou	ınd	Sou	ıthbou	ınd	
	L	${f T}$	R	L	\mathbf{T}	R	L	${f T}$	R	L	T	R	
No. Lanes	2	0	2	0	0	0	0	2 .	< 1	1	2	0	
Volumes	810		860					2750	190	220	1110		
PHF or PK15	0.95		0.95					0.95	0.95	0.95	0.95		
Lane W (ft)	12.0		12.0			,		12.0	12.0	12.0	12.0		
Grade		0						0			0		
% Heavy Veh	13		13					13	13	13	13		
Parking	N	N					N	N		N	N		
Bus Stops			0						0			0	
Con. Peds			0			0	1		0	ļ		0	
Ped Button	(Y/N)	N					(Y/N)	N		(Y/N) N		
Arr Type	3		3				ļ	3	3	3	3		
RTOR Vols			0]		100	İ		0	
Lost Time	3.00		3.00				l	3.00	3.00	3.00	3.00		
Prop. Share									0	ĺ			
Prop. Prot.										ĺ			

Signal Operations Phase Combination 1 2 3 4 7 8 5 6 EB Left NB Left Thru Thru Right Right Peds Peds WB Left SB Left Thru Thru Right Right Peds Peds EB Right WB Right NB Right SB Right Green 25.0A Green 40.0A 6.0A 3.0 Yellow/AR Yellow/AR 3.0 3.0 Cycle Length: 80 secs Phase combination order: #1 #5 #6

	Lane	Group:											
	Mvmts	Cap	Flow	Ratio	Ratio	Delay	LOS	Delay	LOS				
EB	L	898	2875	0.978	0.313	36.2	D	30.0	D				
	R	1094	2573	0.936	0.425	24.6	C						
NB	TR	1514	3027	2.009	0.500	*	*	*	*				
	R	643	1286	0.148	0.500	7.0	В						
SB	L	237	1438	0.979	0.613	60.8	F	20.8	С				
	${f T}$	1514	3027	0.810	0.500	13.3	В						
		Inte	ersection	Delay = :	* (sec/ve	eh) Int	ersec	tion LOS	= *				
(g/	C) * (V/c) is gre	ater than	one. Cal	culation	of D1 is	s infe	asible.					

Center For Microcomputers In Transportation

University of Florida

512 Weil Hall

Gainesville, FL 32611-2083 (904) 392-0378

Streets: (E-W) SR-2

(N-S) Exit Ramp

Analyst: TC File Name: INTC25AM.HC9

Area Type: CBD 1-30-1 AM

Comment: 2025

Traffic and Roadway Conditions

	Eastbound		Wes	tbou	nd	l No	rthbou	ınd l	Son	ıthbou	nd	
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	2	0	2	0	0	0	0	2 <	< 1	1	2	0
Volumes	810		860				İ	2750	190	220	1110	
PHF or PK15	0.95		0.95					0.95	0.95	0.95	0.95	
Lane W (ft)	12.0		12.0					12.0	12.0	12.0	12.0	
Grade		0	!				1	0			0	
% Heavy Veh	13		13					13	13	13	13	
Parking	N	N					N	N		N	N	
Bus Stops			0						0			0
Con. Peds			0			0			0			0
Ped Button	(Y/N)	N					(Y/N) N		(Y/N)) N	
Arr Type	3		3					3	3	3	3	
RTOR Vols			0						100			0
Lost Time	3.00		3.00				1	3.00	3.00	3.00	3.00	

Signal Operations

Pha EB	se Combination Left	1 *	2	3	4	NB	Left	5	6	7	8
	Thru					Ì	Thru	*			
	Right	*					Right	*			
	Peds						Peds				
WB	Left					SB	Left	*	*		
	Thru						Thru	*			
	Right						Right				
	Peds					İ	Peds				
						Ì					
NB	Right					EB	Right		*		
SB	Right					WB	Right				
Gre	en 25	.OA				Gre	en 40	.0A	6.0A		
Yel	low/AR 3	.0				Yel	low/AR 3	.0	3.0		

Cycle Length: 80 secs Phase combination order: #1 #5 #6

Streets: (E-W) SR-2

(N-S) Exit Ramp

Analyst: TC

File Name: INTC25AM.HC9

Area Type: CBD 1-30-1 AM

Comment: 2025

Volume Adjustment Worksheet

Direction/ Mvt	Mvt Vol	PHF	Adj Vol	Lane Grp	Lane Grp Vol	No. Ln	Lane Util Fact	Growth Fact	Adj Grp Vol	Prop LT	Prop RT
EB											
Left	810	0.95	853	L	853	2	1.030	1.000	879	1.00	0.00
Right	860	0.95	905	R	905	2	1.130	1.000	1023	0.00	1.00
NB											
Thru	2750	0.95	2895	TR	2895	2	1.050	1.000	3040	0.00	0.00
Right	190	0.95	95	R	95	1	1.000	1.000	95	0.00	1.00
SB											
Left	220	0.95	232	L	232	1	1.000	1.000	232	1.00	0.00
Thru	1110	0.95	1168	Т	1168	2	1.050	1.000	1226	0.00	0.00

Saturation Flow Adjustment Worksheet

Direction /LnGrp	Ideal Sat Flow	No. Lns	f W	f HV	f G	f p	f BB	f A	f RT	f LT	Adj Sat Flow
EB											
L	1900	2	1.00	0.88	1.00	1.00	1.00	0.90	1.00	0.95	2875
R	1900	2	1.00	0.88	1.00	1.00	1.00	0.90	0.85	1.00	2573
NB						_					
TR	1900	2	1.00	0.88	1.00	1.00	1.00	0.90	1.00	1.00	3027
R	1900	1	1.00	0.88	1.00	1.00	1.00	0.90	0.85	1.00	1286
SB										0.10	151
L	1900	1	1.00	0.88	1.00	1.00	1.00	0.90	1.00	0.95	1438
T	1900	2	1.00	0.88	1.00	1.00	1.00	0.90	1.00	1.00	3027

HCM: SIGNALIZED INTERSECTION SUMMARY Version 2.4g 03-07-2001 Center For Microcomputers In Transportation

Streets: (E-W) SR-2

(N-S) Exit Ramp

Analyst: TC

File Name: INTC25PM.HC9

Area Type: CBD

1-30-1 AM

Comment: 2025

=========	======:	=====	=====	=====	====		======		====
	Eastbo	ound	Wes	tbound	i	Northbound	l so	outhbou	ınd
	LT	R	L	T	R	LTR	!	T	R
No. Lanes	2 0	2	0	0	0	0 2 < 1	1	2	0
Volumes	810	860				!	90 220		
Lane W (ft)	12.0	12.0				12.0 12	.0 12.0	12.0	
RTOR Vols		0				:	00		0
Lost Time	3.00	3.00				3.00 3.	00 3.00	3.00	
					- 				
Phase Combi	nation 1	2	-	Opera	101		_	_	_
EB Left	11ac1011 1	2	3	4	NB	5	6	7	8
Thru	•				IMB	Left Thru *			
Right	*				-	Right *			
Peds					i	Peds			
WB Left					SB		*		
Thru					100	Thru *			
Right					-	Right			
Peds					1	Peds			
NB Right					EB		*		
SB Right					WB				
Green	25.0A				Gr	een 40.0A	6.0A		
Yellow/AR	3.0				Ye	llow/AR 3.0	3.0		
Cycle Lengt	h: 80 se	cs Pha	se co	mbina	tion	order: #1 #5	#6		

	Lane	Group:	2 J/								
	Mvmts	Cap	Flow	Ratio	Ratio	Delay	LOS	Approac Delay	LOS		
EB	L	898	2875	0.978	0.313	36.2	D	30.0	D		
	R	1094	2573	0.936	0.425	24.6	. C				
NB	TR	1514	3027	2.009	0.500	*	*	*	*		
	R	643	1286	0.148	0.500	7.0	В				
SB	L	237	1438	0.979	0.613	60.8	F	20.8	С		
	${f T}$	1514	3027	0.810	0.500	13.3	В				
	<pre>Intersection Delay = * (sec/veh) Intersection LOS = *</pre>										
1011	(a/C)*(V/C) is greater than one Calgulation of D1 is informible										

(g/C)*(V/C) is greater than one. Calculation of D1 is infeasible.

HCM: SIGNALIZED INTERSECTION SUMMARY Version 2.4g 03-07-2001

Center For Microcomputers In Transportation

Streets: (E-W) SR-2

(N-S) Exit Ramp

Analyst: TC

File Name: INTC25PM.HC9

Area Type: CBD 1-30-1 AM

Comment: 2025

	Ea	stboı	und	Wes	tbou	nd	1	Nor	thbou	ınd	Sou	ıthbou	nd
	L	T	R	L	T	R	Ì	L	T	R	L	T	R
							-						
No. Lanes	2	0	2	0	0	0		0	2 4	< 1	1	2	0
Volumes	810		860				ĺ		2750	190	220	1110	
PHF or PK15	0.95		0.95				ĺ		0.95	0.95	0.95	0.95	
Lane W (ft)	12.0		12.0				-		12.0	12.0	12.0	12.0	
Grade		0					-		0			0	
% Heavy Veh	13		13				Ì		13	13	13	13	
Parking	N	N					ļ	N	N		N	N	
Bus Stops			0				-			. 0			0
Con. Peds			0			1	0			0			0
Ped Button	(Y/N)	N						(X/N)	N		(Y/N)	N	
Arr Type	3		3				-		3	3	3	3	
RTOR Vols			0							100	1		0
~Lost Time	3.00		3.00						3.00	3.00	3.00	3.00	
Prop. Share										0			*
Prop. Prot.	1						-						
Signal Operations													

	•		Si	gnal	Opera	tion	S				
Pha	se Combinatio	on 1	2	3	4			5	6	7	8
EΒ	Left	*				NB	Left				
	Thru					Ì	Thru	*			
	Right	*				İ	Right	*			
	Peds					İ	Peds				
WB	Left					SB	Left	*	*		
	Thru	•				İ	Thru	*			
	Right					İ	Right				
	Peds					İ	Peds				
NB	Right					EB	Right		*		
SB	Right					WB	Right				
Gre		25.0A				Gre		A0.0	6.0A		
Yel	low/AR	3.0				•	low/AR				
	•	30 secs	Phas	e co	mbinat		order:				

	Intersection Performance Summary											
	Lane	Group:	Adj Sat	v/c	g/C			Approad	ch:			
	Mvmts	Cap	Flow	Ratio	Ratio	Delay	LOS	Delay	LOS			
EB	L	898	2875	0.978	0.313	36.2	D	30.0	D			
	R	1094	2573	0.936	0.425	24.6	С					
NB	TR	1514	3027	2.009	0.500	*	*	*	*			
	R	643	1286	0.148	0.500	7.0	В					
SB	L	237	1438	0.979	0.613	60.8	F	20.8	С			
	T	1514	3027	0.810	0.500	13.3	В					
				Delay = 3				tion LOS	= *			
(g/c)	2) * (V/c)) is grea	ater than	one. Calo	culation	of D1 is	s infe	asible.				

HCS: Signalized Intersection Version 2.4g

03-07-2001 1

Center For Microcomputers In Transportation

University of Florida

512 Weil Hall

Gainesville, FL 32611-2083 (904) 392-0378

Streets: (E-W) SR-2

(N-S) Exit Ramp

Analyst: TC File Name: INTC25PM.HC9

Area Type: CBD 1-30-1 AM

Comment: 2025

Traffic and Roadway Conditions

	Eastbound		Wes	tbou	nd	Noi	thbou	ınd	Sou	ıthbou	ınd	
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	2	0	2	0	0	0	0	2 <	< 1	1	2	0
Volumes	810		860				Ì	2750	190	220	1110	
PHF or PK15	0.95		0.95				İ	0.95	0.95	0.95	0.95	
Lane W (ft)	12.0		12.0				İ	12.0	12.0	12.0	12.0	
Grade	[0					İ	0			0	
% Heavy Veh	13		13				ĺ	13	13	13	13	
Parking	N	N					N	N		N	N	
Bus Stops			0				į		0			0
Con. Peds	1		0			0	ĺ		0	İ		0
Ped Button	(Y/N)	N					(Y/N) N		(Y/N)	N	
Arr Type	3		3				İ	3	3	3	3	
RTOR Vols			0						100			0
Lost Time	3.00		3.00				Ì	3.00	3.00	3.00	3.00	

Signal Operations

Phase Combination EB Left	1	2	3	4	 NB	Left	5	6	7	8
Thru					İ	Thru	*			
Right	*				İ	Right	*			
Peds					İ	Peds				
					İ					
WB Left					SB	Left	*	*		
Thru						Thru	*			
Right						Right				
Peds						Peds				
NB Right					EB	Right		*		
SB Right					WB	Right				
	.0A				Gre		A0.0	6.0A		
Yellow/AR 3	. 0				Yel	low/AR	3.0	3.0		

Cycle Length: 80 secs Phase combination order: #1 #5 #6

Streets: (E-W) SR-2 (N-S) Exit Ramp

Analyst: TC File Name: INTC25PM.HC9

Area Type: CBD 1-30-1 AM

Comment: 2025

Volume Adjustment Worksheet

Direction/ Mvt	Mvt Vol	PHF	Adj Vol	Lane Grp	-	No. Ln	Lane Util Fact	Growth Fact	Adj Grp Vol	Prop LT	Prop RT
EB											
Left	810	0.95	853	L	853	2	1.030	1.000	879	1.00	0.00
Right	860	0.95	905	R	905	2	1.130	1.000	1023	0.00	1.00
NB											
Thru	2750	0.95	2895	TR	2895	2	1.050	1.000	3040	0.00	0.00
Right	190	0.95	95	R	95	1	1.000	1.000	95	0.00	1.00
SB											
Left	220	0.95	232	L	232	1	1.000	1.000	232	1.00	0.00
Thru	1110	0.95	1168	T	1168	2	1.050	1.000	1226	0.00	0.00

Saturation Flow Adjustment Worksheet

-	Ac Sa F	f LT	f RT	f A	f BB	f p	f G	f HV	f W	No. Lns	Ideal Sat Flow	Direction /LnGrp
												EB
375	2:	0.95	1.00	0.90	1.00	1.00	1.00	0.88	1.00	2	1900	L
573	2	1.00	0.85	0.90	1.00	1.00	1.00	0.88	1.00	2	1900	R
												NB
27	3	1.00	1.00	0.90	1.00	1.00	1.00	0.88	1.00	2	1900	TR
286	1	1.00	0.85	0.90	1.00	1.00	1.00	0.88	1.00	1	1900	R
151)	0.10										SB
138	5 1	0.95	1.00	0.90	1.00	1.00	1.00	0.88	1.00	1	1900	L
)27) 3	1.00	1.00	0.90	1.00	1.00	1.00	0.88	1.00	2	1900	T
2 1 4) 3 () 1 () 1 (1.00 1.00 0.10 0.95	1.00 0.85	0.90 0.90 0.90	1.00	1.00	1.00	0.88 0.88	1.00	2 1	1900 1900	NB TR R SB

APPENDIX E

CAPACITY ANALYSIS: SERVICE LIFE

Page 1 ______

Center For Microcomputers In Transportation

University of Florida

512 Weil Hall

Gainesville, FL 32611-2083

Ph: (904) 392-0378

File Name 5AM2017.HC3

Location..... 5 2025

From/To..... Time of Analysis.... am

Date of Analysis.... 01/17/01

Other Information....

A. Geometrics and Traffic Input Data	Dir 1	Dir 2
Traffic Volume (vph)	5988	4174
Peak-Hour Factor or Peak 15-min Volume	0.95	0.95
Percentage of Trucks	17.0	17.0
Percentage of Recreational Vehicles	0.0	0.0
Number of Lanes	3	3
Free-Flow Speed (mph)	65.0	65.0
Lane Width (ft)	12.0	12.0
Obstructions-No (0), One (1) or Both (2)	0	0
Distance from Pavement Edge (ft)		
Driver Population Factor	1.00	1.00

B. Adjustment Factors

			E	E	F	F	F
	Terrai	n Type	T	R	HV	W	P
Dir	1	LEVEL	1.50		0.922	1.00	1.00
Dir	2		1.50		0.922	1.00	1.00

C. Level of Service Results	Dir 1	Dir 2
Maximum Service Flow (MSF) (pcphpl)	2280	1589
Level of Service (LOS)	E	D
Projected Speed at Flow Rate (mph)	53.7	64.6
Density (pc/mi/ln)	42.48	24.60
Density (veh/mi/ln)	39.16	22.67
Speed of prevailing traffic (mph)	53.7	64.6

HCS: Freeways Release	2.1g
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Center For Microcomputers In Transportation

University of Florida

512 Weil Hall

Gainesville, FL 32611-2083

Ph: (904) 392-0378

Page 1

File Name 1AM2018.HC3

Location..... 1 2018

From/To..... tc
Analyst.... tc
Time of Analysis.... am

Date of Analysis.... 01/17/01

Other Information....

A. Geometrics and Traffic Input Data	Dir 1	Dir 2								
Traffic Volume (vph) 7967 5354										
Peak-Hour Factor or Peak 15-min Volume	0.95	0.95								
Percentage of Trucks	17.0	17.0								
Percentage of Recreational Vehicles	0.0	0.0								
Number of Lanes	4	5								
Free-Flow Speed (mph)	65.0	65.0								
Lane Width (ft)	12.0	12.0								
Obstructions-No (0), One (1) or Both (2)	0	0								
Distance from Pavement Edge (ft)										
Driver Population Factor	1.00	1.00								

B. Adjustment Factors

			E	E	F	F	F
	Terrai	n Type	T	R	HV	W	P
Dir	1	LEVEL	1.50		0.922	1.00	1.00
Dir	2		1.50		0.922	1.00	1.00

C. Level of Service Results	Dir 1	Dir 2
Maximum Service Flow (MSF) (pcphpl)	2275	1223
Level of Service (LOS)	E	С
Projected Speed at Flow Rate (mph)	53.8	65.0
Density (pc/mi/ln)	42.26	18.82
Density (veh/mi/ln)	38.95	17.34
Speed of prevailing traffic (mph)	53.8	65.0

HCS:	Ramps	Release	2.1g	Page	1

Center For Microcomputers In Transportation

University of Florida

512 Weil Hall

Gainesville, FL 32611-2083

Ph: (904) 392-0378

Analyst..... tc

Other Information.....

A. Ramp Configuration Input Data

		Analysis	Upstream	
	Freeway	Ramp	Ramp	
Traffic Volume	8138	2194	312	
Peak-Hour Factor	0.95	0.95	0.95	
Percentage HV's	11.0	11.0	11.0	
Percentage RV's	0.0	0.0	0.0	
Number of Lanes	4	2		
Lane Width (ft)	12.0	12.0	12.0	
Free-flow Speed (mph)	65	45		
Obstructions	0	0	2	
Distance from Edge (ft)			0.0	
Type of Ramp		OFF	ON	

Analysis ramp is a right-hand ramp. Length of deceleration lane is 2000 ft. Distance to upstream ramp is 2200 ft.

HCS: Ramps								Page 2		
	File Name 2DPM19.HC5									
	B. Adjustment Factors									
Ter	rain Type		R		W					
Freeway Ramp Upstrm	LEVEL			0.94 0.94	8 1. 8 1.	00 1. 00 1. 86 1.	00			
	C.	Level	of Se	ervice :	Result	cs				
		n) FFS (mph)	Lanes	Width (ft)	W	HV	P	(pcph)		
	8138 OFF 2194 ON 312	65 4 45	4	12.0 12.0	1.00	0.948	1.00	9037 2436		
Estimation	of V12:									
PFD =	0.260	Using	 Equat:	ion: Sp	ecial	App.	V12 =	4152		
Capacity Cl	necks:									
VFO+VR :	= 9037	V1	2 =	4152						

C

22

53

LOS, Speed, and Density:

Level of Service (LOS)

Computed Speed (mph)

Computed Density (pc/mi/ln)

HCS: Ramps	Release 2.1g		Page 1
========		===============	

Center For Microcomputers In Transportation

University of Florida

512 Weil Hall

Gainesville, FL 32611-2083

Ph: (904) 392-0378

Other Information.....

A. Ramp Configuration Input Data

	Freeway	Analysis Ramp	Upstream Ramp	
Traffic Volume	6122	299	2148	
Peak-Hour Factor	0.95	0.95	0.95	
Percentage HV's	11.0	11.0	11.0	
Percentage RV's	0.0	0.0	0.0	
Number of Lanes	3	1		
Lane Width (ft)	12.0	12.0	12.0	
Free-flow Speed (mph)	65	45		
Obstructions	0	0	2	
Distance from Edge (ft)			0.0	
Type of Ramp		OFF	ON	

Analysis ramp is a right-hand ramp. Length of deceleration lane is 600 ft. Distance to upstream ramp is 2200 ft.

HCS: Ramps		_						Page 2
File Name .						=====	=====	======
		B. Ad	justme	ent Fac	tors			
Terr	ain Type	Т	R	F HV	W	F P		
Freeway Ramp Upstrm	LEVEL	1.50		0.94	8 1.		00	
		Level					f	Vol
		(mph)		(ft)				
Freeway Ramp Upstream	6122	65	3	12.0	1.00	0.948	1.00	6799 332 2774
Estimation	of V12:							
PFD =	0.575	Using	g Equa	ation:	7	V12	= 4	1049
Capacity Ch								
	6799	V12		4049				

D

34 57

Level of Service (LOS)

Computed Speed (mph)

Computed Density (pc/mi/ln)

APPENDIX F COST ESTIMATES & D-S-1 FORMS

COST DATA SHEET

PROJECT: I-75 & U.S. 11 (SR-2) Interchange Modification Study

LOCATION: Hamilton County, Tennessee

TOTAL COST FOR INTERCHANGE MODIFICATION

LENGTH: N/A CROSS SECTION: Varies

RIGHT-OF-WAY

Total Const			Total Construction Cost Preliminary Engineering (10% of Constr.)								
Contigencies											
0			\$253,000								
			\$126,000								
ms (8.5%)			\$160,000								
ction			\$50,000								
			\$45,000								
			\$30,000								
			\$100,000								
			\$50,000								
			\$25,000								
			\$15,000								
			\$25,000								
 ;											
			\$0								
			· · · · · · · · · · · · · · · · · · ·								
/Demorn =	φ35,000										
)									
`ontrol =	\$82,000	\									
			# 00.000								
Total Utility	Adjustment Cost			\$1,519,000							
			\$1,022,000								
			\$497,000								
<u> </u>											
Total Right-		,	_	\$4,225,000							
	`	, <u> </u>	Ψ200,000								
	`	, <u> </u>	· · · · · · · · · · · · · · · · · · ·								
	'										
ι Damages											
Domoseo	/# A area	12.00 \	4 000 000								
	<u>N</u>	(# Tracts (Residences (Businesses (Non-Profits Total Right-Of-Way Cost Total Utility Adjustment Cost Control = \$82,000 (Demol'n = \$35,000)	(# Tracts 10) (Residences 0) (Businesses 1) (Non-Profits 0) Total Right-Of-Way Cost Total Utility Adjustment Cost Control = \$82,000) /Demol'n = \$35,000)	(# Tracts 10) \$25,000 (Residences 0) \$0 (Businesses 1) \$200,000 (Non-Profits 0) Total Right-Of-Way Cost \$497,000 \$1,022,000 Total Utility Adjustment Cost \$20,000 \$310,000 \$25,000 Control = \$82,000) \$300,000 */Demol'n = \$35,000) \$360,000 \$0 \$787,000 \$0 \$25,000 \$100,000 \$25,000 \$25,000 \$50,000 \$30,000 \$30,000 \$45,000 \$45,000 **ction \$50,000 \$160,000							

\$8,778,000

TMP Project No. 99036.11 I-75 & US 11

	99030.11								1-73 & 03 11
			ī	Area (ac)	Ī	Cost/Acre			Total Cost
Clearing & Grubb	oing			10.5		\$2,000			\$21,000
Earthwork	Hunter Rd.		Length (ft) 1,000	<u>Factor</u> 21.86		Total (yd ³) 21,860		Cost / yd ³	
	Mt. View Rd.		1,000 1,400 450	3.45 21.86 12.59		3,450 30,604 5,666	25,310 36,270		
	Loop Ramp		1,400	33.33 11.11		46,662 8,888	55,550		
	Exit, Ent., Taper		1,600 500	11.11 11.11		17,776 5,555			
	Access Rd.		1,400 450	8 8.44	Total:	11,200 3,798 155,459	34,531 3,798		
					. 5 (2.1)	.00,.00		\$2.0	\$310,917
Pavement Remov	/al				Total (Lf)	<u>Cost/Lf</u>			
		Hunter Rd			1,650)			
		Mt. View F Exxon Pro			1,500 300				
					3,450				\$25,013
Drainage		Lee Hwy. I-75 Ramp Curb & Gu	os, Relocated	Hunter/Mo	untainview R 1800 ft @ \$		<u>Cost</u> \$75,000 \$120,000 \$22,500		Total Cost
		0 4.0 0.00				. = . 0 0 7 1.	V ==,000		\$217,500
Erosion Control									\$82,000
Structures		Bridges							
				Width	<u>Length</u>	<u>Area</u>	Cost/sf		Total Cost
	New Hunter Rd. New I-75 Wideni	ng	Additional Additional	12 12	175 228	2,100 2,734	\$60 \$60		\$126,000 \$164,045
		Demolition				_			
		Demonitor	Hunter Rd.	Width 40	<u>Length</u> 175	<u>Area</u> 7,000	Cost/sf \$5		Total Cost \$35,000
						Total Demolit Total Structur			\$35,000 \$325,045
Fence			ĺ	Length 3,000	<u>Cost</u> \$10]			\$30,000
Paving	Lee Hwy.				<u>Cost</u> \$290	<u>Length</u> 400			<u>Total Cost</u> \$116,000

	Hunter Rd. Mt. View Rd. Loop Ramp Exit & Ent. Ramps & Tapers Access Rd. to Krystal	\$15 \$130 \$125 \$80 \$80 \$60 \$80 \$38	1,000 1,000 1,400 1,500 1,400 800 600 600	\$15,000 \$130,000 \$175,000 \$120,000 \$112,000 \$48,000 \$48,000 \$22,800
Maintenance of	Traffic			\$100,000
Topsoil	Hunter, Mountain View Rds. Loop Ramp Exit, Ent. Ramp, Taper	Length Factor 7,200 0.283 4,400 0.565 7,000 0.283	2038 <u>Cost per</u> 2486 1981 6505 \$4.00	\$26,018
Seeding	Hunter, Mountain View Rds. Loop Ramp Exit, Ent. Ramp, Taper	Length Factor 7,800 0.030 4,600 0.061 8,000 0.030	234 <u>Cost per</u> 281 240 755 \$20.00	\$15,092
Sodding	<u>Area (yd²)</u> 5,000	<u>Cost per</u> \$5.00	Total Sod	\$25,000
Signing				\$50,000
Signalization	Modification of two (2) signals			\$100,000
Barrier Rail	(275' @ \$25/ft)			\$6,875
Guardrail	Length of rail 2,100 ft Length of Median Barrier 250 feet	umber of Terminals 6	<u>Cost</u> \$2,000 \$10 Total Guardrai & Median Barrierl:	Total Cost \$12,000 \$21,000 \$45,000
Rip-Rap	Tons 800	Cost Per \$54.00		\$50,075

STATE OF TENNESSEE-DEPARTMENT OF HIGHWAY UTILITY REPORT FOR LOCATION STUDY

ROUTE NO. 1-/5&U.S. 11(S.R.2)	ALTERNATE	
PROJECT NOCOUNTY	Hamilton	
FROM Relocated Hunter Road/Mtr	n. View Road	
TO:		
UTILITY	TOTAL COST OF ADJUSTMENT	REIMBURSEABLE BY STATE
Electric Power Board of Chatt.	s <u>77,500</u>	s3,800
Century Telephone Company	s 279,200	s <u>16,000</u>
Eastside Utility District (water)	s <u>342,700</u>	s <u>17,0</u> 00
Hamilton Co. Wastewater Authority	s600,500	s 378,000
Atl <u>anta Light & Gas CO.</u>	s 131,800	s 6,500
Duke Energy (E,T.N.G.)	s75,000	s <u>75,000</u>
Comcast CATV	s 12,000	so
	S	\$
TOTAL	s 1,518,700	s 496,300
RAILROAD YES NO X		
REMARKS		
	1	
•	PREPARED BY:	e C. furtus
	DATE: 04-12	-01
Ž	APPROVED BY	
I	DATE	

RIGHT-OF-WAY REPORT FOR LOCATION STUDY

EDERAL PROJ. Inter	change Modifi	cation	PROJ	.DESC	, a tal
	ESTIMA	TED RIGHT-0	F-WAY COSTS	1 111	
	ALT.		ALT.	ALT.	ALT.
COST ITEMS	EST. COST		EST. COST	1	EST. COST
LAND REQUIRED	\$1,200,000	\$	\$	\$	\$
ACRES	12+/-				
IMPROVEMENTS	\$ 300,000	\$	\$	\$	\$
NUMBER	1				
DAMAGES	\$2,500,000	\$	\$	\$	\$
INCIDENTALS	\$ 25,000	\$	\$	\$	\$
RESIDENTIAL REL.	\$ -0-	\$	\$	\$	\$
NUMBER	-0-				
BUS.&FARM REL.	\$ 200,000	\$	\$	\$	\$
NUMBER	3			•	
TOTAL EST. COST OF ROW	\$4,225,000	\$	\$	\$	\$
REMARKS: This ass	umes a slight	: shift toward	the Golden G	allon (Exxon)	to
reduce damages t					
heavily damaged.					
		, was			William .
		PREPARI	ED BY		
			-	4-12	- 01
JERRY W	HONES			DATE	
	V	RECOMMI	ENDED		
NAMEO			<u></u>	DATE	
HA .		APPRO	VED	<i>*</i>	
Jorry P. Jor	108			4-12-	-01
	on Specialist			DATE	

TDOT DESIGN CRITERIA FOR LOCATION AND DESIGN PHASE

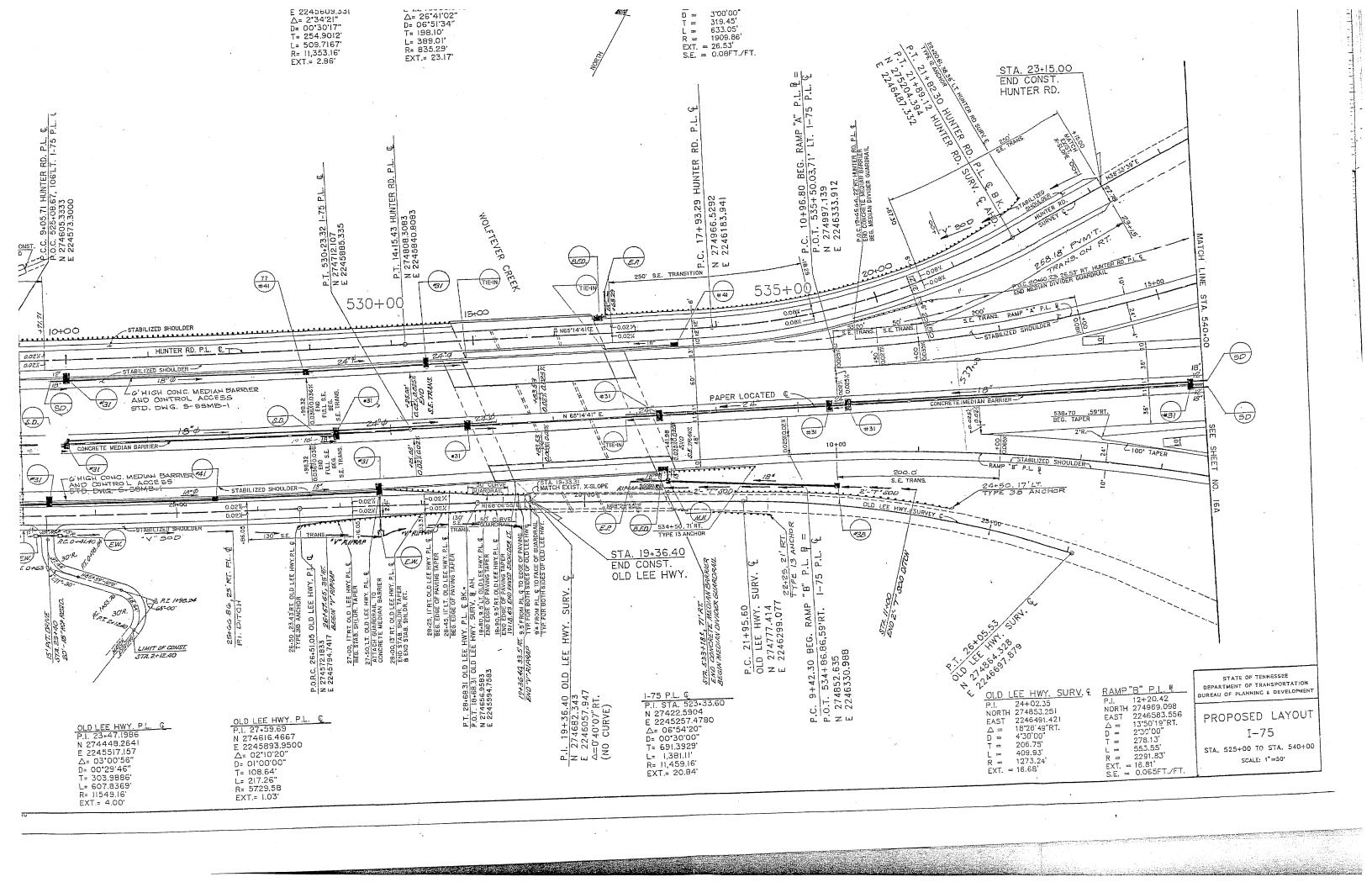
ROUTE: REGION:	Relocated Hunter Road ALTERNATE: II COUNTY: Hamilton	PROJECT NO.: SECTION:
LOCATION	FROM: TO:	
PRESENT AD	OT (2005)	14,520
FUTURE ADT	(2025)	20,650
PERCENT TR	RUCKS	13% (ADT) 11% (DHV)
DHV (2025)		2,065
FUNCTIONAL	_ CLASSIFICATION	Local
MINIMUM DE	SIGN SPEED	35 mph
ACCESS CON	NTROL	None
MAXIMUM CL	JRVE	16 00' (0.06 Max S.E.)
MAXIMUM GF	RADE	9%
MINIMUM ST	OPPING SIGHT DISTANCE	250'
SURFACE WI	DTH	*
NUMBER OF	LANES	*
USABLE SHC	OULDER WIDTH	*
MEDIAN WID	тн	0
MINIMUM RIG	SHT OF WAY	112' **
SIGNALIZATION		Yes ***
REMARKS:	* Varies (See Plans for details)	
	** Easements may be required outside of the	
	*** Signalized intersection with SR-2 and Relo	cated Mountain View Road

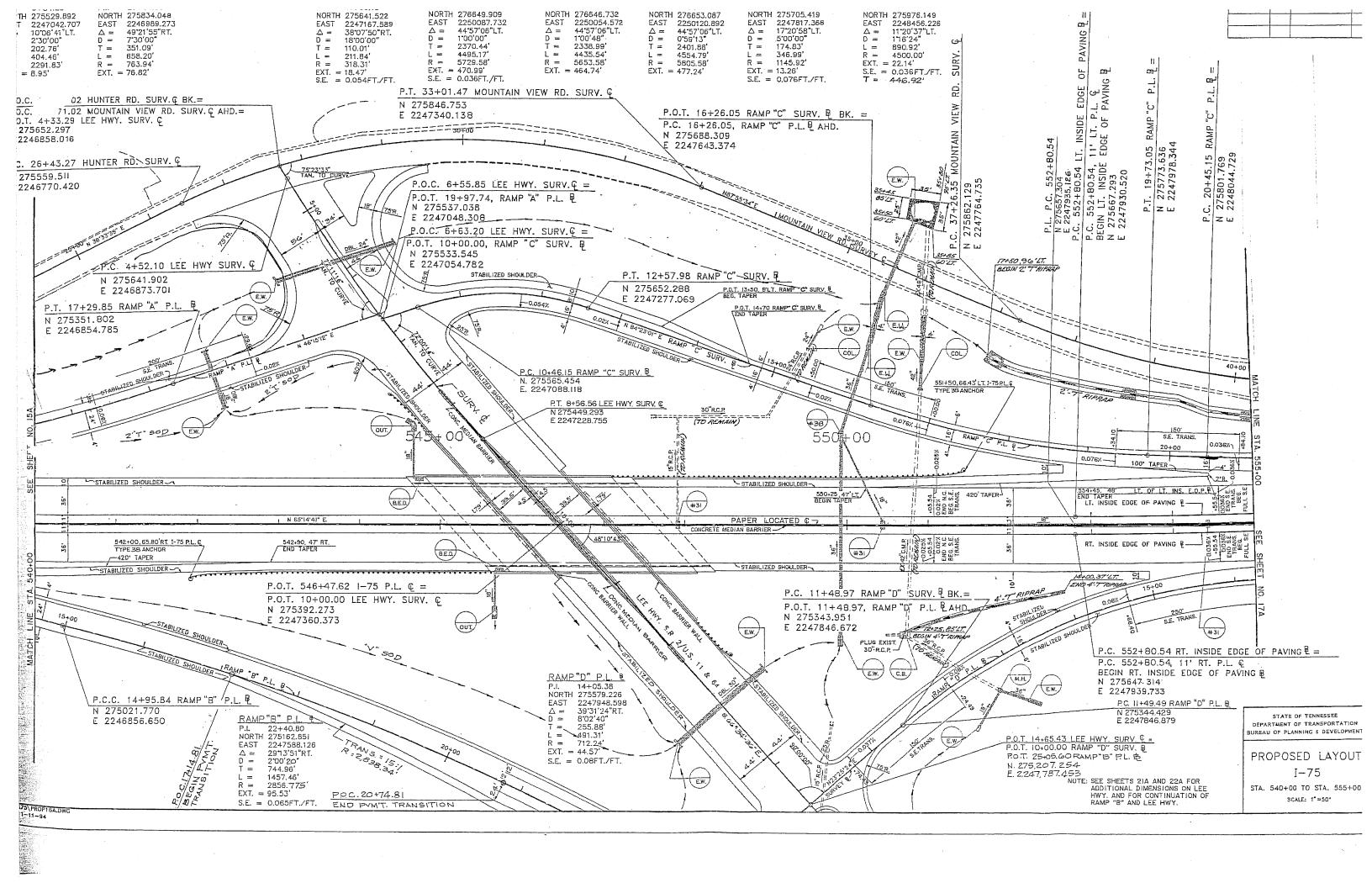
TDOT DESIGN CRITERIA FOR LOCATION AND DESIGN PHASE

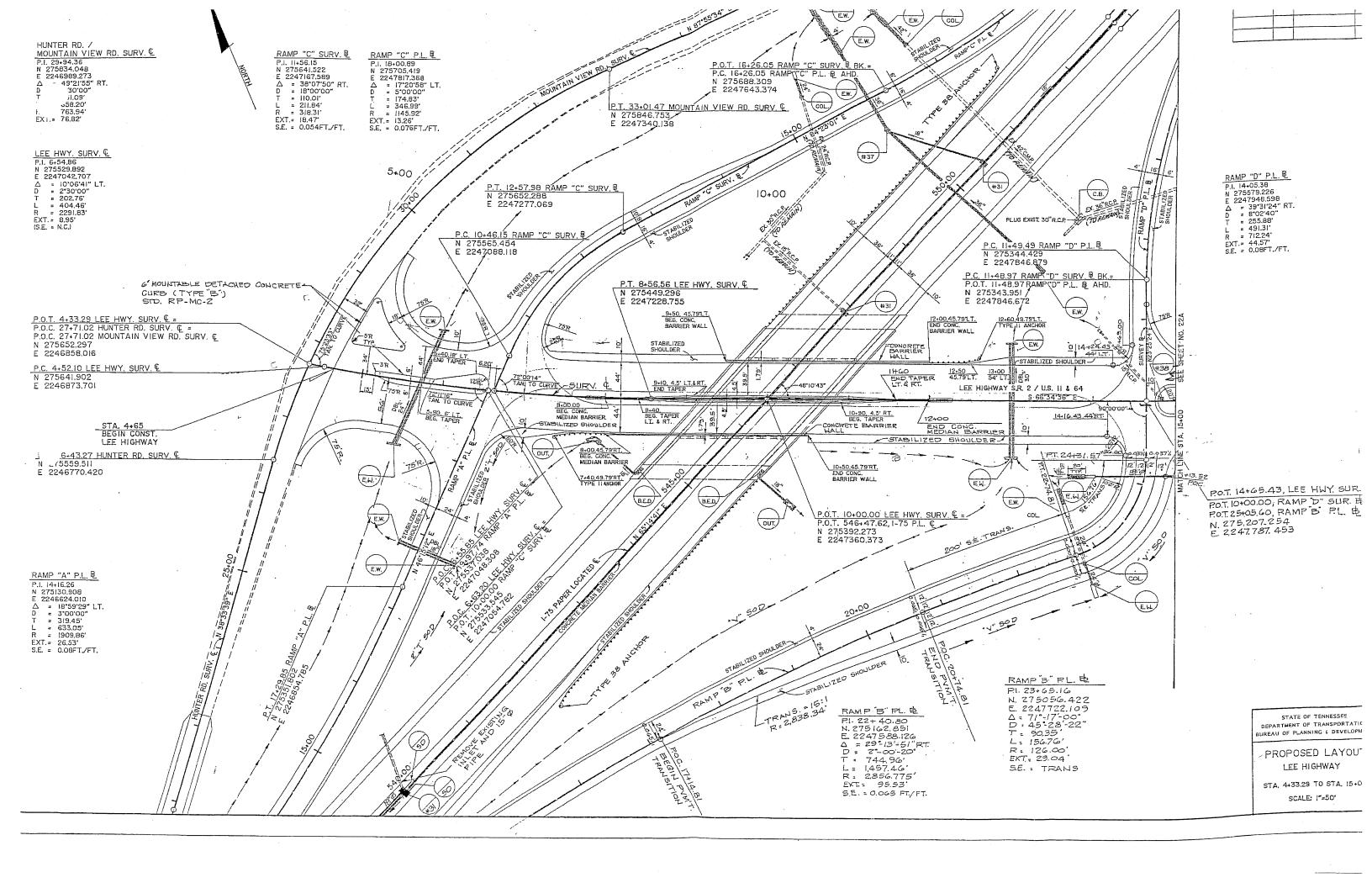
ROUTE: REGION:	Relocated Mt View Road ALTERNATE: II COUNTY: Hamilton	PROJECT NO.: SECTION:	
LOCATION	FROM:	1100E01110	
	TO:		
PRESENT AD	OT (2005)	17,980	
FUTURE ADT	Г (2025)	26,420	
PERCENT TE	RUCKS	13% (ADT) 11% (DHV)	
DHV (2025)		2,642	
FUNCTIONAL	_ CLASSIFICATION	Local	
MINIMUM DESIGN SPEED		35 mph	
ACCESS CO	NTROL	None	
MAXIMUM CL	URVE	16 00' (0.06 Max S.E.)	
MAXIMUM GI	RADE	9%	
MINIMUM ST	OPPING SIGHT DISTANCE	250'	
SURFACE W	IDTH	*	
NUMBER OF	LANES	*	
USABLE SHO	DULDER WIDTH	*	
MEDIAN WID	TH	0	
MINIMUM RIG	GHT OF WAY	112' **	
SIGNALIZATI	ON	Yes ***	
REMARKS:	* Varies (See Plans for details)		
	** Easements may be required outside of the	· · · · · · · · · · · · · · · · · · ·	
	*** Signalized intersection with SR-2 and Relo	ocated Hunter Road	

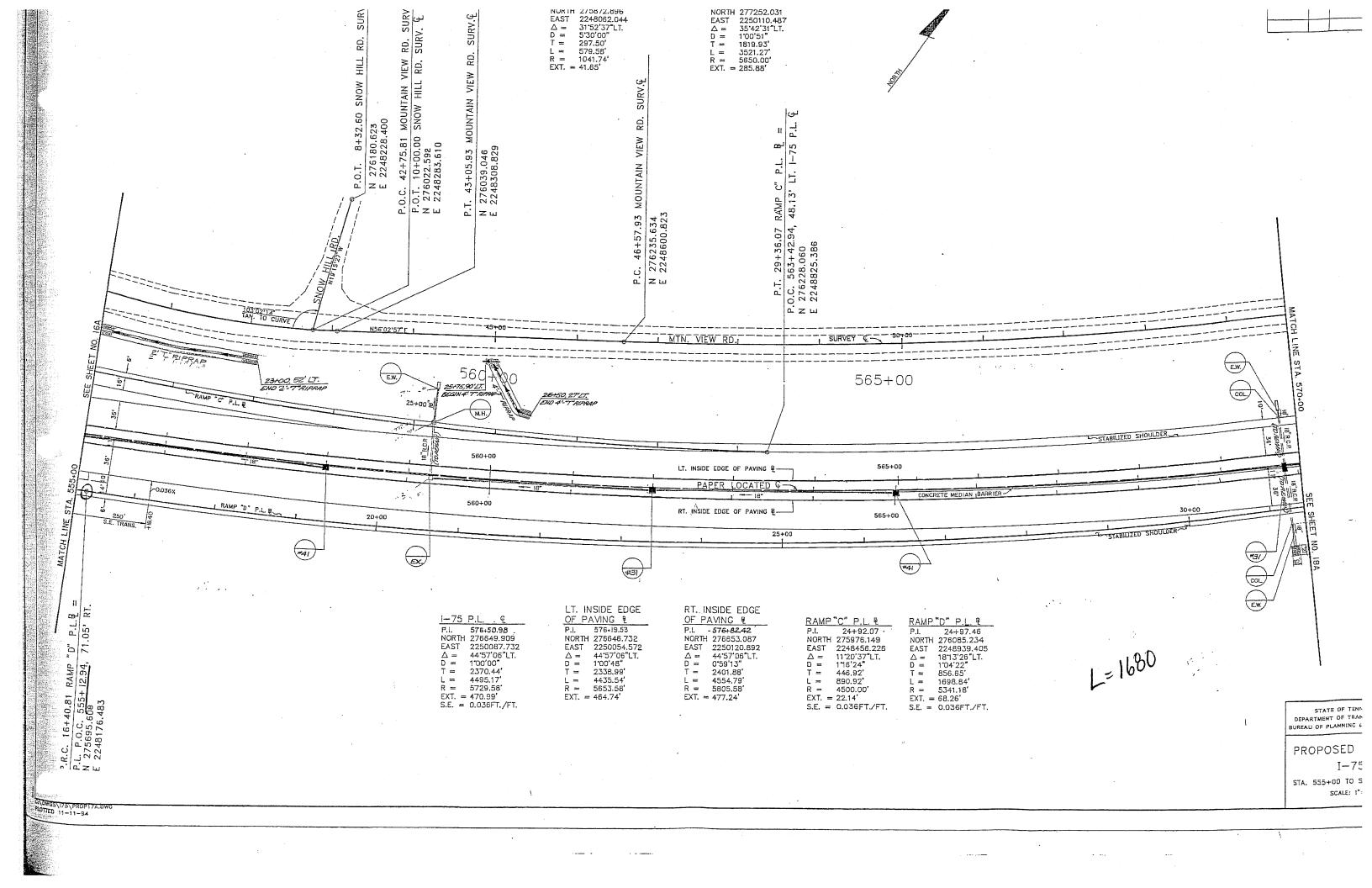
APPENDIX G IMPROVEMENTS UNDER DESIGN











APPENDIX H ALTERNATIVES FOR IMPROVEMENTS CONSIDERED







APPENDIX I FUNCTIONAL PLANS

Index Of Sheets

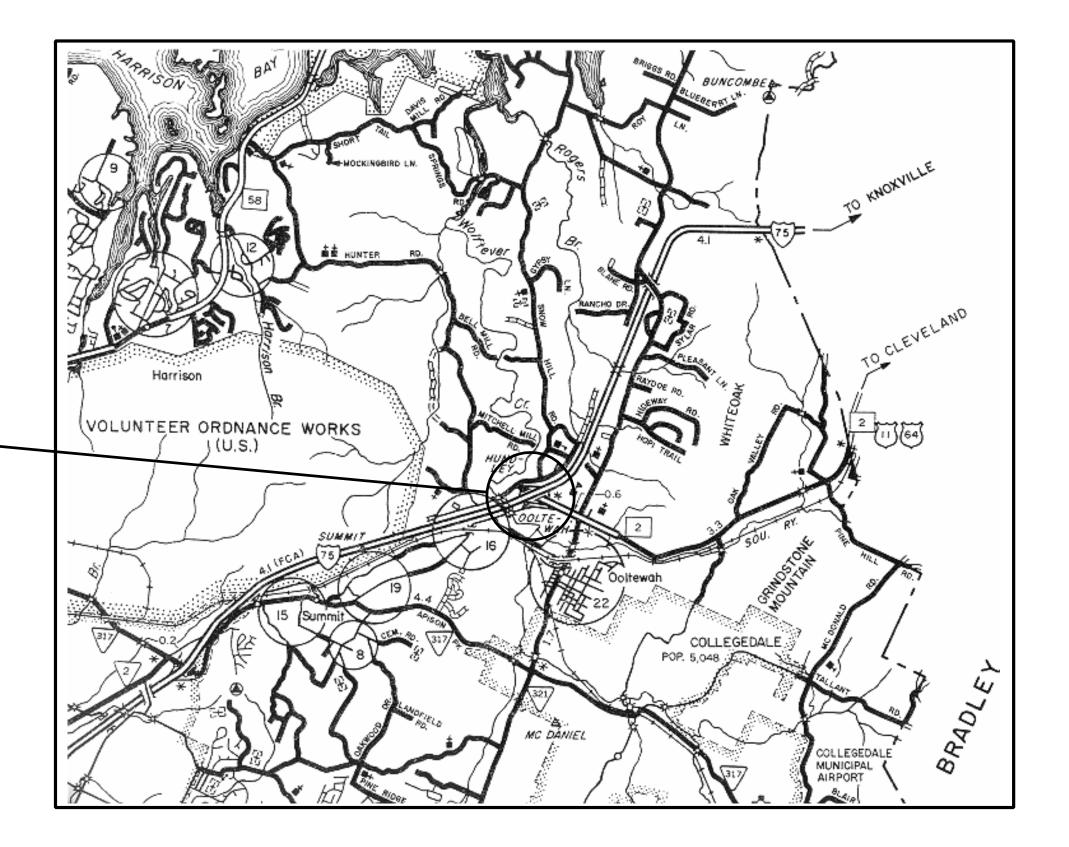
DESCRIPTION SHEET NO. TITLE SHEET TYPICAL SECTIONS 2,2A PROPOSED LAYOUT SHEET

STATE OF TENNESSEE DEPARTMENT OF TRANSPORTATION BUREAU OF PLANNING AND DEVELOPMENT

HAMILTON COUNTY

INTERSTATE 75 & SR-2 (LEE HIGHWAY)

STATE HIGHWAY NO. F.A.H.S. NO.



N

APPROVED:

PROJECT LOCATION

DIRECTOR, DESIGN DIVISION

DATE:

APPROVED:

COMMISSIONER

U.S. DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION

TENN.

FED. AID PROJ. NO.

STATE PROJ. NO.

2001

APPROVED:

DATE DIVISION ADMINISTRATOR

SPECIAL NOTES

PROPOSALS MAY BE REJECTED BY THE COMMISSIONER IF ANY OF THE UNIT PRICES CONTAINED THEREIN ARE OBVIOUSLY UNBALANCED, EITHER EXCESSIVE OR BELOW THE REASONABLE COST ANALYSIS VALUE.

THIS PROJECT TO BE CONSTRUCTED UNDER THE STANDARD SPECIFICATIONS OF THE TENNESSEE DEPARTMENT OF TRANSPORTATION DATED MARCH 1, 1995 AND ADDITIONAL SPECIFICATIONS AND SPECIAL PROVISIONS CONTAINED IN THE PLANS AND IN THE PROPOSAL CONTRACT

DESIGNED BY THOMAS & MILLER, LLC

DESIGNER THOMAS M. CLINARD, P.E. CHECKED BY______ P.E. NO. ____

PROJECT LOCATION

SCALE: 1"= 1 MILE

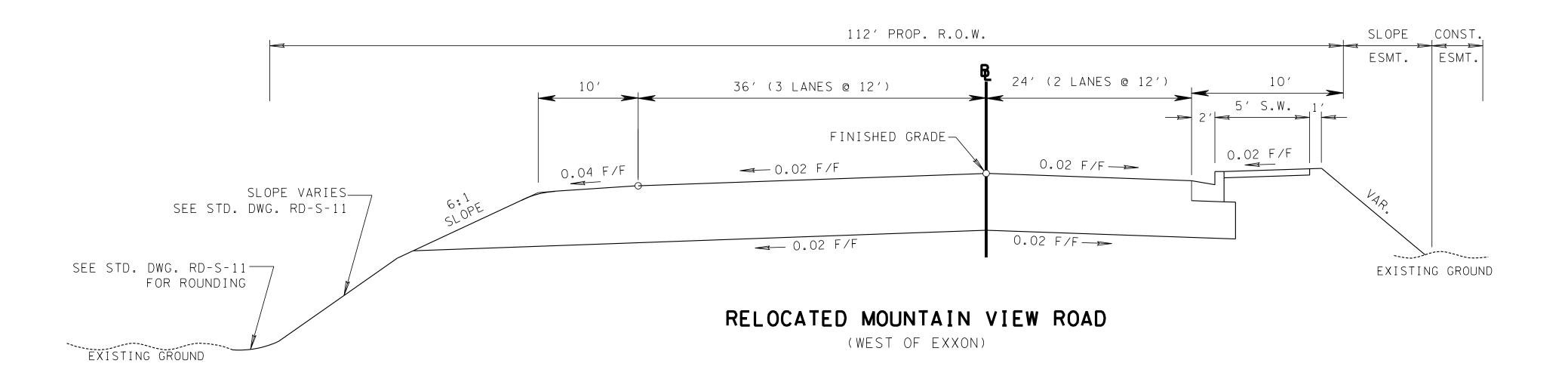
TRAFFIC	DATA
ADT (2005)	85,200
ADT (2025)	136,500
DHV (2025)	13,650
D	60 - 40
T (ADT)	17 %
T (DHV)	10 %
V	70 MPH

	TYPE	YEAR	PROJECT NO.	SHEET NO.
	A.P.R.	2001	I-75/U.S.11	2
1				

CONST. SLOPE				
ESMT. ESMT.	48' (4 LANES @ 12')	₽ 36' (3 LANES @ 12')	ESMT. ESMT.	
EXISTING GROUND 1' 5' S.W. 2'	FINISHED GRADE -		2' 5' S.W. 1'	
0.02 F/F	→ 0.02 F/F	0.02 F/F →	0.02 F/F	
			LAP.	
	→ 0.02 F/F	0.02 F/F─ >	EXISTING GROUND	

SR-2 (LEE HIGHWAY)

(FROM RAMP TERMINI TO RELOCATED HUNTER RD./MOUNTAIN VIEW RD.)



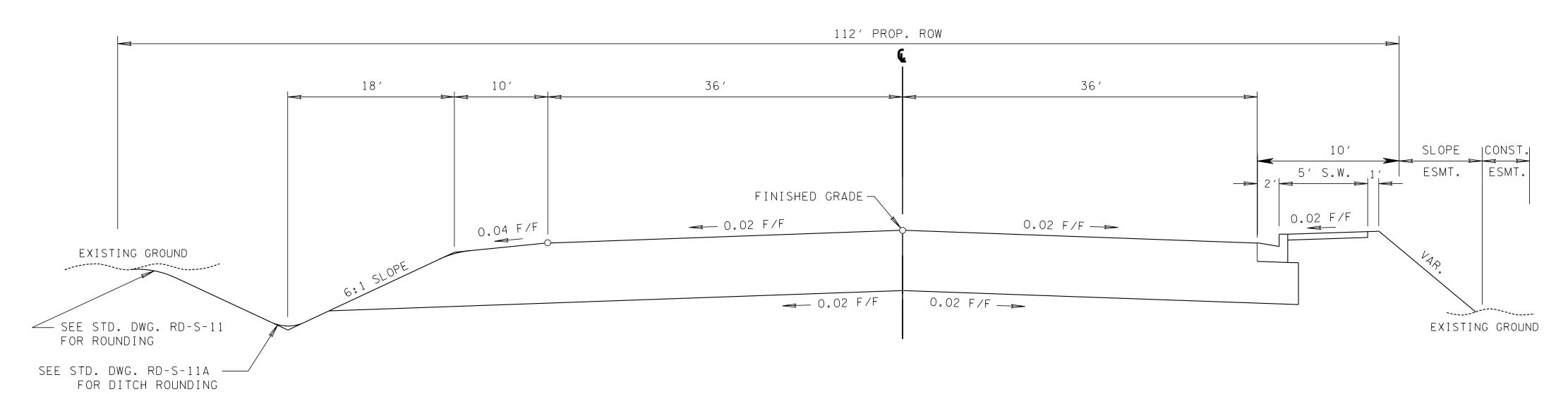
STATE OF TENNESSEE

DEPARTMENT OF TRANSPORTATION

BUREAU OF PLANNING & DEVELOPMENT

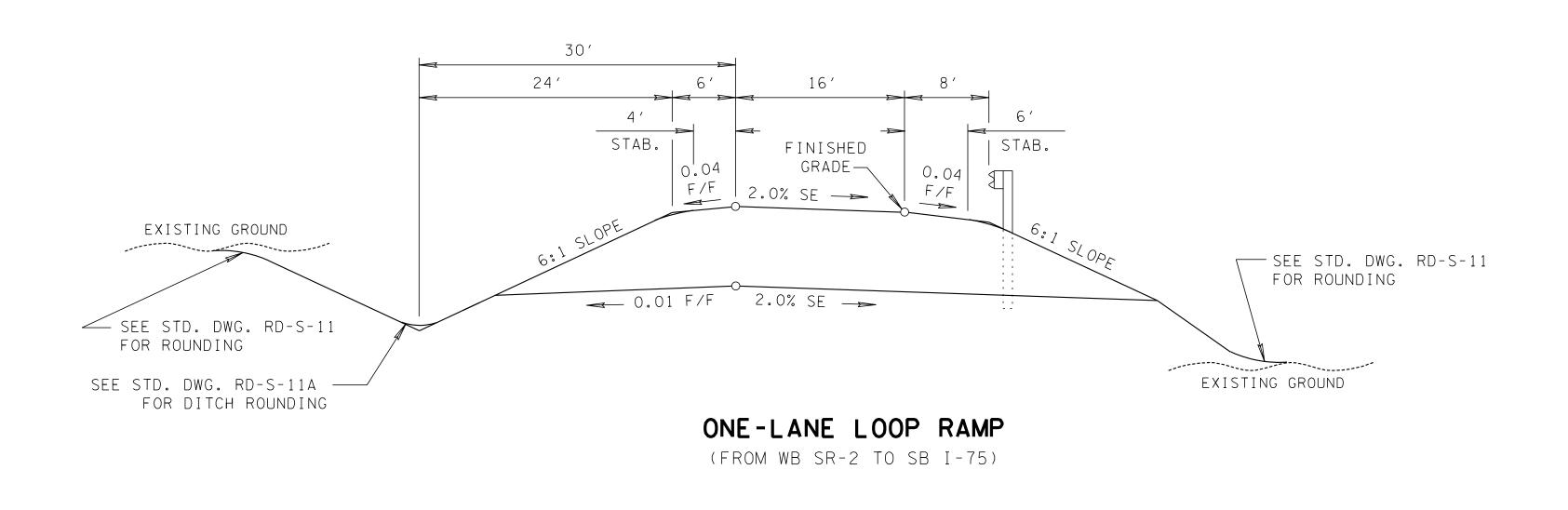
SECTIONS

TYPE	YEAR	PROJECT NO.	SHEET NO.
A.P.R.	2001	I-75/U.S.11	2A



RELOCATED HUNTER ROAD

(FROM SR-2 TO ACCESS ROAD)



STATE OF TENNESSEE

DEPARTMENT OF TRANSPORTATION

BUREAU OF PLANNING & DEVELOPMENT

TYPICAL SECTIONS

